Fort Hunter Liggett
Regulation 350-2

Training at Fort Hunter Liggett

Headquarters, FHL
Fort Hunter Liggett, CA
31 March 2010

SUMMARY of CHANGE

FHLR 350-2
Training at Fort Hunter Liggett

This revision dated 31 March 2010--

- Re-establishes Fort Hunter Liggett as a United States Army Reserve training installation and provides information on the installation and requesting support for training. Older additions of Fort Hunter Liggett Regulation 350-2 are no longer valid.

- Updates the information contained herein to more closely conform to current training and range safety requirements.

- Introduces new training support request forms. All previous editions of these forms are obsolete.

Headquarters, FHL
Fort Hunter Liggett, CA
31 March 2010

Training at FHL

By order of the Commander,
FHL Fort Hunter Liggett,
California:

JAMES M. SURIANO
Colonel, United States Army
Commanding

Summary. This regulation describes general policies, responsibilities, safety practices and procedures for requesting the use of training facilities located at Fort Hunter Liggett.

Applicability. This regulation applies to all organizations and agencies utilizing Fort Hunter Liggett.

Proponent and exception authority. The proponent of this regulation is the Range Officer at FHL. The Training Management Office (TMO) has the authority to approve exceptions to this regulation that are consistent with controlling laws and regulations.

Interim Changes. Interim changes to the regulation are not official unless they are authenticated by the Range Officer at FHL.

Distribution. Distribution of this regulation is made to all organizations utilizing FHL and is available online at http://www.liggett.army.mil

Suggested improvements. The proponent of this regulation is the Directorate of Plans, Training, Mobilization & Security (DPTMS). Users are invited to send comments and suggested improvements on a DA Form 2028 (Recommended Changes to Publications and Blank Forms) through channels to Directorate of Plans, Training, Mobilization & Security at the following address: Commander, FHL, Fort Hunter Liggett ATTN: IMSW-HUN-PLT (Range Officer) Fort Hunter Liggett, Jolon, CA 93928-7111

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Chapter 1
Introduction

Section I
General

1-1. Purpose
This regulation describes the Fort Hunter Liggett (FHL) training policies and practices that ensure units and Soldiers train safely and realistically. It provides the training unit commander with maximum flexibility to conduct challenging training. This regulation is organized so that a user must only read the first three chapters and then select the applicable appendixes and annexes pertaining to the specific training activity being conducted.

1-2. Applicability
This regulation applies to all Active and Reserve Component military units and other users authorized to conduct training at the FHL, and include all areas which are currently being or have been used for training and live fire exercises.

1-3. References (APPENDIX A)
Required and related publications and prescribed and referenced forms are listed in Appendix A.

1-4. Explanation of Abbreviations and Terms (APPENDIX B)
Abbreviations and special terms used in this regulation are explained in the glossary. Appendix B

1-5. FHL Range Control Office.
a. Location and Contact Information. Range Control is located in building S-320C and maintains a 24 hour operation during training exercises. If Range Control is closed, calls will be forwarded to DES. Routine range business is conducted during normal duty hours. Important contact information is in the table below.

Range Officer	(831) 386-3145
Range NCOIC	(831) 386-3787
Range Scheduling	(831) 386-2510 DSN 686-2510 Fax (831) 386-2766 RangeOps2@conus.army.mil
Range Control Operations (Firing Desk)	(831) 386-2403/2503 DSN 686-2403/2503 Frequency FM 41.05
FHL Directorate of Emergency Services (DES)	(831) 386-2608/2884

b. Maps. FHL Military Installation Maps can be ordered through the Range Control Office.

1-6. Training Bulletins and Notices.
a. Range Control publishes a weekly training bulletin, which lists ranges, and off-limits routes and areas by specific dates. The bulletin is published so that information is made public at least 24 hours prior to the scheduled dates.

b. The DPTMS-Range Division Training Bulletin is the final confirmation that a training facility is available for use by a unit.

WARNING
Neither units nor individuals are authorized to enter areas that are not listed for their occupation in the Training Bulletin

1-7. Military Use of Los Padres National Forest and Lake San Antonio

a. Purpose. To establish policy and procedures for military use of Los Padres National Forest (LPNF) and Lake San Antonio (LSA).

b. Military use of LPNF and LSA will be coordinated by FHL Range Control, with the United States Forest Service and the United States Army. Requests to use these areas will be included in the Unit's Training Support Request (TSR). Units will provide overlays depicting the type of operations/training they desire to conduct.

c. Los Padres National Forest

(1) The type of training most ideal for LPNF is reconnaissance due to the rugged terrain and restrictions on the use of pyrotechnics.

(2) Military units operating in the LPNF will comply with the following:

(a) Civilian property will be avoided. Civilian campsites, mining claims, and structures are off limits.

(b) Fires are strictly prohibited at all times.

(c) Pyrotechnics will not be carried inside the LPNF with the exception of red star clusters for emergency purposes. Only responsible individuals will carry red star clusters.

(d) Units will police all trash generated and deposit it at appropriate disposal sites. The same standards of police that apply to FHL also apply to LPNF.

(e) Name of unit liaison officer will be provided to Range Control prior to entry into LPNF. US Forest Service personnel will accompany liaison officer if so desired by LPNF.

(f) Off road vehicle traffic is prohibited.

d. LPNF provides using units with additional challenging terrain that borders FHL. Every precaution will be taken by commanders to protect this wilderness area. Continuous violations or disregard of the above policy could result in the loss of maneuver rights or restrictions that would negate any training value for maneuvers in LPNF.

e. Units desiring to use LSA for water operations will ensure the area is also thoroughly policed and that minimal disturbance is made to the environment.

Section II
Responsibilities

1-8. FHL INSTALLATION Responsibilities

a. FHL Installation Commander will:

(1) Execute overall responsibility for the use of all training areas and facilities on FHL.

(2) Assign the Range Officer the responsibility to coordinate and receive concurrence from the appropriate directorate for training and support facilities use, and to approve use of all training facilities on FHL.

(3) Take such action as deemed necessary to ensure compliance with all regulations and orders pertaining to safe training.

(4) May waive safety criteria of this regulation. All other waiver requests and/or actions will be in accordance with AR 385-63 and DA PAM 385-63, Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat.

b. DPTMS will:

(1) Supervise and enforce policies established by Federal and State Legislation, Department of Defense and Department of the Army Regulations, and the Installation Commander, FHL.

(2) Implement the directives of the Commander, FHL and other Higher Headquarters directives.

(3) Provide recommendations to the Installation Commander to establish regulations and standard operating procedures for the use of all training facilities.

(4) Approve all training facility use and ensure units comply with training facility schedules. Monitor and enforce compliance with environmental laws and regulations as related to all activities conducted on FHL.

(5) Provide direct supervision to the Range Officer.

(6) Ensure that proper notification is given to appropriate agencies by units experiencing misfires, malfunctions, or excessive unexploded ordnance (UXO) rates during training.

c. Range Officer will:

(1) Review all Surface Danger Zone (SDZ range fan) overlays. Ensure all range fans are correct in accordance with AR 385-63 and DA PAM 385-63. This includes, but not limited to explosive, non-explosive and laser fires, and demolition training.

(2) Ensure that the Firing Desk is informed of each Unit's training plan.

(3) Review all Live Fire Exercise (LFX) plans and ensure that appropriate safety measures are planned before, during, and after each LFX.

(4) Assist using units to prepare range overlays and barrier plans for LFX.

(5) Ensure that all units conducting LFX possess approved range fan and barrier overlays.

(6) Ensure range sweeps are conducted prior to live fire operations by firing units.
(7) Ensure appropriate range surface clearing has been accomplished following LFX.
(8) Investigate (IAW AR 75-1) UXO, weapon malfunction, and/or ammunition malfunction and notify Explosive Ordnance Detachment (EOD), Tank Automotive Command Logistics Assistance Representative and QASAS as required.
(9) Report any mishaps associated with equipment containing a radioactive material, LASERS or radio frequency radiation (IAW AR 385-10) to the INSTALLATION Safety Office.
(10) Coordinate the use of restricted airspace for training and live fire operations.
(11) Assume responsibilities as the Airfield Commander.
(a) Provide flight services administrative support to aviation units and aircraft.
(b) Provide an ADVISORY service for aircraft arriving, transitioning, or departing FHL.
(c) Schedule FHL airspace for requesting units.
(d) Prepare daily and weekend aviation briefings and transmit them as required to units utilizing FHL airspace.
(12) Plan and conduct maintenance of all established ranges, training sites, and training devices.
(13) Assist to establish regulations and standard operating procedures for the use of all training facilities.
(14) Supervise the Range Control NCOIC, MPRC Manager, and ITAM Coordinator.
d. Range Control NCOIC will:
(1) Provide initial range operations certification briefing to unit Commanders, OICs, and Range Safety Officers (RSO) of using units.
(2) Provide environmental awareness briefings in conjunction with ITAM Coordinator.
(3) Ensure that all units conducting LFX possess approved range fan and barrier overlays.
(4) Coordinate emergency services for units in the field, as required
(5) Provide road barriers for live fire operations.
(6) Inspect all training areas for accumulation of trash, wire, and unnatural material.
(7) When required, staff a 24-hour Range Control that maintains communications with aviation and ground units.
(8) Assist in planning and conducting general maintenance of training facilities.
(9) Provide operational control of the Range Control communications net.
e. Installation Safety Office will:
(1) Review and approve Unit requests to store munitions in arms rooms. Use of Arms Rooms is limited to the storage of small arms; normally for up to three days and not to exceed seven days. Use is only granted when it is not feasible to establish a field ammunition holding area.
(2) Conduct incident investigations for incidents deemed to be Class A through C. (Injuries or damage to government property over $10,000.00 IAW DA PAM 385-40).
(3) Review Range Certification on new or upgraded ranges before range use.
(4) Serve as the Installation Radiation Safety Officer.
(5) Assist in the review of Risk Assessments as requested by Range Control.
(6) Assist in Explosive Safety Site Plans and Licenses requirements IAW DA PAM 385-64.
f. Director of Logistics (DOL), IAW an approved Training Support Request, will:
(1) Issue and receive ammunition at the Ammunition Supply Point (ASP).
(2) Provide bulk and retail fuel support.
(3) Provide other logistical support as required by using units, normally on a reimbursable basis.
g. Director of Public Works (DPW), IAW an approved Training Support Request, will:
(1) Maintain roads and facilities.
(2) Conduct an environmental review of proposed training activity, and notify DPTMS of the results.
(3) Monitor the environmental impact on FHL resulting from military training.
(4) Maintain Schoonover Tactical Assault Landing Strip.
h. Director of Information Management (DOIM) will provide phone, LAN, and FM frequency management.
i. Law Enforcement Activity will:
(1) Provide accident investigation as necessary and other DES functions as needed.
(2) Notify owners of livestock found in areas occupied by training units including the MPRC and training areas.
(3) Issue arms room access codes to approved requesting units.
j. QASAS (Quality Assurance Specialist Ammunition Surveillance) / ASP will:
(1) Provide information to units on the procedures of computer-based training to certify the Ammunition Drivers and Handlers. All Ammunition Driver and Handler certification is handled by computer based training.
(2) Verify that ammunition lot numbers for use on the Installation are not suspended.
(3) Provide Explosive Safety and Site Plan review for field storage of ammunition.
(4) Assist the ASP with requests for Hazmat Shipper Certification assistance (DD Form 836) as required by units departing ranges for ASPs.

(5) Provide ammunition malfunction/misfire technical and reporting assistance when notified and requested by units and/or FHL Range Control.

1-9. Unit Responsibilities

a. Training Unit Commanders will:

(1) Submit the Training Support Request FHL Form DPT-2: Training Support Request (TSR) (Figure 1-1), to Range Control, no later than sixty (60) days before the intended training. The confirming request must contain the information listed in Chapter 2, Section I, Scheduling, of FHL Regulation, Training at FHL. If not submitted 60 days in advance, Range Control will attempt to accommodate the unit's Training Support Requests, contingent on adequate logistics request lead times and sufficient safety precautions.

(2) Ensure all munitions have been requested before the unit arrives at FHL and standard Army procedures for forecasting, receipt, handling, use, and turn-in are followed. Units can arrange for the shipment of ammunition to the FHL Ammunition Supply Point (ASP) (Annex E) through standard ammunition forecasting procedures (TAMIS-R).

(3) Ensure units transporting ammunition to FHL from other facilities will coordinate with FHL Ammunition Supply Point (ASP) and provide a copy of DA Form 581 listing items and lot numbers. Storage at sites other than the ASP will be coordinated with Range Control and forwarded to the Garrison Safety Office and the QASAS.

(4) Submit requests for intermittent closures of public access roads (Mission Creek, Nacimiento-Fergusson, Del Venturi, Sam Jones, and Vasquez Roads) at least two weeks ahead of use to allow time for Range Control to inform local residents.

(5) Complete an approved risk management worksheet for each training event prior to the unit commencing its training operations. See Appendix F: Safety and Risk Management for more information concerning the risk management process.

(6) Designate a representative from the unit to report to Range Control and sign for the requested training area/facility prior to any element of the unit entering the area/facility. This requirement applies to training areas, firing ranges, and field training sites.

(7) Provide recovery, maintenance, medical, and Class I support with the advance party.

(8) On site medical support is required IAW AR 385-63. Medical support is the responsibility of the unit chain of command. Units will not be denied the use of training facilities, FHL offers emergency 24 hour 7 days a week BMT and ground MEDEVAC coverage through the fire department.

(9) Ensure communications are established with Range Control upon arrival of the advance party and maintained until the rear detachment clears the training areas.

(10) Ensure all planned terrain disturbances (field training areas) caused by hand or mechanical means are submitted on an overlay and approved as part of the Training Support Request. This includes digging, defensive fighting positions, hasty fighting positions, and counters mobility obstacles. There are significant archeological sites and sensitive natural resources, protected by Federal Law, on FHL. Damage to these sites could result in charges under the Uniform Code of Military Justice (UCMJ) and/or civil suit.

(11) Ensure all terrain disturbances are returned to their original state.

(12) Ensure all personnel are instructed on fire prevention, spill prevention and control, accident reporting procedures, UXO reporting procedures, and requesting medical evacuation (MEDEVAC).

(13) Ensure vehicles utilize only established turnoffs when departing improved roads.

(14) Ensure that all garbage and trash is placed in the debris containers at the refuse collection point on Nacimiento-Fergusson road, and that container overflow procedures are adhered to.

(15) Report all accidents, fires, and serious incidents immediately to Range Control.

(16) The proper wear of uniform on ALL firing ranges will be helmet, LBE, and IBA with all SAP1 plates (unless otherwise by the commander's discretion which will be address in risk management/memorandum.

b. Unit Arrival

(1) Advance Parties/Detachments

(a) An advance detachment representative will report to Range Control (building S-320C) immediately upon arrival on the Installation to arrange for logistical and training briefings.

(b) Facilities will not be issued to an organization until they check in with Range Control.

(2) Main Body

(a) Units training at FHL will have an approved RFMSS Training Support Request on file at the FHL Firing Desk in Range Control prior to occupying any training facility. Units must have a designated Officer in Charge (OIC) check in at Range Control upon arrival.

(b) The OIC and Range Safety Officers (RSO) must have a current Land Usage Briefing Certification prior to the unit occupying an approved training facility. This briefing is conducted on a regular basis on Fridays at 1400 hours. Units can schedule separate briefings with the approval of the Range Control NCOIC. This briefing does not eliminate the requirement for live-fire, LASER and/or aviation operations briefings.

(c) The Unit OIC will sign for all requested training areas and facilities scheduled to be used on a DA Form 3161 provided by the Firing Desk Duty NCOIC. The DA Form 3161 will also include all keys, barriers, etc. that the Unit will need during the training event.

(d) The Unit OIC will be briefed by the Firing Desk Duty NCOIC by use of FHL Form DPT-8: Range Briefing Procedures. This form is signed by both the Firing Desk Duty NCOIC and Unit OIC then is placed in the unit's active file.

(e) The Unit OIC will be provided with the following reference forms (all forms can be found in Appendix C):
FHL Form DPT -9: Range Safety/Operations Checklist
FHL Form DPT -10: Personnel Safety Briefing Checklist
These forms are to be used by the Unit as a guide for safe range and training operations during the scheduled training event. Much of the information on these forms will be required by Range Control during the training event via radio communication.

(f) The Firing Desk NCOIC will ensure that the following forms are located in the Unit's active file:
FHL Form DPT-2: Training Support Request (TSR)
FHL Form DPT-3: Environmental MOU (if required).
FHL Form DPT-4: Record of Environmental Consideration (REC) (if required).
FHL Form DPT-5: Environmental Review (if required).
FHL Form DPT-7: Co-Use Agreement (if required).
FHL Form DPT-14: Range Inspector Clearance Report
FHL Form DPT-11: Live Fire Data Sheet

(g) If a unit's training plan includes crossing the Sam Jones Road Gate, the unit will be issued a code by the Firing Desk NCOIC. This code will open the Sam Jones Gate. Units are encouraged to disseminate the code to all drivers and unit members. This code will be in activation during the time the unit will be training at FHL. When a unit departs FHL, the code will be de-activated.

(h) Units will stay in their approved training areas unless authorized to relocate by FHL Range Control.

Chapter 2
Training Areas and Ranges – Access and Use

Section I
Scheduling

2-1. General
This Chapter describes the procedures to be utilized when requesting facilities to satisfy training requirements at FHL, California. It is critical to fully understand the training environment at FHL. When determining long range training, commanders at all levels must anticipate upcoming requirements and gather all available information on recurring events.

2-2. Request for Use and Scheduling
a. Installation Reimbursable Policy.

(1) All units planning on conducting training on the Installation will contact range control scheduling to determine reimbursable charges that will apply. Prior to training events being scheduled MIPRs or FADs will be in place with the Installation resource management office to provide funding for planned training activities.

b. Co-use agreements (FHL Form DPT-7 Co-Use Agreement) generated by RFMSS will be used to resolve conflicts between units requesting the same training area for the same time. Approval authority for co-use agreements rests solely with the DPTMS or his representative. Co-use agreements must be completed and submitted by Range Scheduling within 30 days prior to occupation and must be sufficiently detailed to ensure safe training. Failure to meet these requirements may result in disapproval of the co-use. The Secondary unit must have this form signed by the Priority unit prior to the start of training.

c. Training Support Request.

(1) Requesting to utilize FHL for training, and requiring FHL assets and resources, submit a completed Training Support Request to the Range Scheduling Branch. The completed form will then be staffed through the appropriate FHL staff directorates/special staff officers. If necessary, requesting units will receive a telephonic notification requesting additional information. FHL will notify units of conflicts or possible non-support by email or telephonic means. However, it is incumbent of the unit to ensure that their training requirements are properly coordinated with the appropriate directorate. Milper will be reviewed before unit is scheduled for training.

(2) Optimally, the FHL Training Support Request will arrive at FHL Range Control NLT 90 days prior to the unit's arrival.

(a) The form is available on the Internet at www.liggett.army.mil. The e-mail address on the TSR is the preferred method of submission. Units are advised that this option makes extensive use of mandatory fields, and that the failure to provide all required (mandatory field) information will prevent transmittal of the TSR. The TSR is also available as an e-mail file attachment through the web page.

(b) Alternatively, units may send requests directly to FHL at the following address or fax number:

Commander, INSTALLATION, Fort Hunter Liggett
ATTN: IMSW-HUN-PLT-H
(Range Officer)
FHL, Jolon, CA 93928-7111
Fax - (831) 386-2766
DSN Fax: 686-2766

(c) Unforecasted requirements will be delivered to the Range Officer as soon as possible. If co-use of training sites is required, it will be coordinated between the using units, and Range Scheduling Office.

(d) To extend scheduled training over an upcoming weekend or holiday, Range Control must receive the Unit's request for extension NLT 48 hours prior to the first day of the requested extension.

(e) Units will receive confirmation of training request approval or disapproval.

d. Prioritization of Use. The Range Officer will accomplish prioritization of military use of FHL after considering mission, unit and project priority, and available facilities. The goal will be to accommodate all users with regard to mission priorities, safety, and efficient use of space.

e. Reconnaissance of Training Areas/Sites/Facilities:

(1) Units are encouraged and invited to conduct advance reconnaissance of training areas and facilities to enhance their training event(s) planning.

(2) Any unit desiring to conduct a reconnaissance will provide the Training and Scheduling Section a memorandum with at least 48-hour advance notice. This notice will include the number of personnel, time of arrival, type of vehicle(s), and areas to be recon. No POV's will be authorized for recons. Without advance notice, FHL Training and Scheduling will be unable to guarantee accessibility of requested areas, and this may result in Unit personnel making an unsatisfactory trip to FHL.

2-3. Cancellation of Training Areas/Facilities

a. Training areas/facilities previously scheduled will be canceled at least 7 working days or when the requirements no longer exist. Units that fail to cancel will be charged for the facilities or ranges requested. Facility requests can be cancelled by one of the following means:

(1) Deliver a hard copy to Range Scheduling, Building S-320C, during normal duty hours.

(2) Contact Range Scheduling at (831)386-2510 DSN: 686-2510. Telephonic cancellations must be followed by hard copy within 24 hours.

b. Any facility can be canceled within 7 days of your training event without being charged a NO SHOW for that day. Units failing to occupy or cancel a training facility with Range Scheduling are given a 'NO SHOW".

c. To receive credit for utilization the user must occupy the range or training area by contacting Range Control at (831)386-2403/2503 DSN: 686-2403/2503. If a user has scheduled an area or range for consecutive days, the user must occupy the area on a daily basis to receive credit for utilization. Exception to the daily occupation requirement must be coordinated with and approved by Range Scheduling.

2-4. Utilization

Range Operations will track utilization using RFMSS. Using units and the RFMSS Scheduler/Operator will confirm unit identification, facilities used and number of soldiers trained per facility per day.

Section II
Access and Use Restrictions

2-5. Access to Impact Areas and Limited Access Maneuver Areas

a. Under no circumstances may any personnel enter the training areas, for any reason, without the written approval of Range Control.

b. The following areas are off limits except to specifically authorized personnel:

(1) All archaeological sites encountered on FHL ranges and training areas. These areas are bounded by orange cones, SEIBERT stakes, and "OFF LIMIT" signs.

(2) Those areas specified in the current Training Bulletin.

(3) Construction sites.

(4) SEIBERT Stakes:

(a) Federal law and Army regulations require the protection and conservation of significant natural and cultural resources. At FHL all Installation, Active and Reserve component activities are reviewed for compliance with Federal and State environmental rules and regulations.

(b) To insure that significant natural and cultural resources are not inadvertently impacted, Seibert Stakes (formerly known as SIBER or LEMAT Stakes) have been placed around the perimeter of several protected resources.

(c) The stakes erected at FHL are mounted four (4) feet above the ground on metal posts and spaced at 30-meter intervals. Seibert Stakes consist of a 16-inch piece of PVC pipe wrapped with bands of white, yellow, and red reflective tape. One side of the stake has a black band that faces into the protected area. If you find that you are inside of a protected area, you shall immediately exit the site and report the incident to Range Control. These markers are Thermal Imaging System (TIS) capable.

(d) Seibert Stakes are used to mark environmental sensitive areas OFF LIMITS. These areas can include: bird banding stations, wetlands mitigation sites, historic buildings, prehistoric and historic archeological sites, sensitive habitats, and areas of suspected or known contamination.

2-6. Areas Restricted from Bivouac and Similar Activities (Off-Limits)

a. Off Limits Areas:

(1) All training areas are off limits unless the using unit is in possession of an approved Training Support Requests, co-use agreement, or special permit.

(2) All training areas are off limits to all personnel not involved in training related activities unless they have a training area pass issued by FHL Range Control. Personnel caught in the training areas without permission will be escorted out by Range Control or apprehended and cited by DES. .

(3) Military operations within the cantonment area or within any properly marked restricted area (ASP security zone, archeological sites, town of Jolon, etc.) are prohibited without the written permission of the FHL Range Officer, or training scheduler.

(4) There will be NO driving around barricades.

b. Environmental Policy:

(1) There will be no cutting of trees or use of live foliage for camouflage. Vegetation that is down due to natural causes may be used for these purposes.

(2) Dig and barrier plans must be submitted to the Range Officer for approval.

(3) Detailed environmental policy can be found in Annex A.

2-7. Non-Military Use and Activity

a. General. The availability of FHL facilities for non-Army use is determined by military unit usage. Non-Army use of any facility by private parties will be secondary to all Military/Installation mission training. Except where a preference is required by law, Army-controlled real property that is available for use for non-Army purposes will be granted in the following order of preference:

(1) Non-Army entities which support an Army, Installation/project, or national defense mission.

(2) Other military departments or DOD activities or agencies.

(3) Other Federal agencies or activities.

(4) Contractors who support the above.

(5) State or local government agencies or entities.

(6) Private parties.

b. Roads.

(1) County Highways G14/G18 (Jolon Road) and Interlake Road are open to the public, with the occasional delays that may occur due to military training.

(2) Mission Road up to San Antonio Mission, Nacimiento-Fergusson, Del Venturi, and Vasquez Roads are generally open to the public, however, they may be closed for extended periods of time due to military operations and/or road construction.

(3) Normally the Installation will notify the public 24 hours in advance of any road closure through the local media, National Forest Service bulletins and posted signs at the entrance to the road. However, natural disasters and weather conditions may cause closures without notice. Stopping on these roads is prohibited with the exception of emergencies, i.e. mechanical failure.

(4) Use of all other roads and trails is prohibited unless specific authorization has been obtained from Range Control. The Installation Commander has the authority to bar any individual from FHL property due to violations of established regulations and laws.

c. Public Facilities. The Hacienda, Bowling Center, Post Office, and San Antonio Mission are open to the public during their posted hours of operation. Office buildings are generally open for business and coordination purposes that require no prior coordination for access during normal business hours.

2-8. Authorized Access of Facilities.

a. Short Term Usage. The Installation Commander may approve the use of ranges and training areas by schools, federal or state and local government agencies, organized clubs, and civic associations on a short term basis (no more than seven consecutive days or thirty days per year). Requests for such use should be submitted through the Training and Scheduling Section with in sixty days of the event. Each request must accompany a FHL Form DPT-2: FHL Training Support Request (Figure 1-1) and a DA Form 833-R (License to Use Army Reserve Facilities). Civilian organizations must comply with Department of Defense and DA regulations and FHL Regulation 350-2.

b. Long Term Usage. A written bilateral agreement between FHL and using organizations is prepared for each long term request (more than seven consecutive days or more than thirty days per year). These agreements specify the rights, liabilities, procedures, regulatory requirements, and responsibilities associated with the use of the Army property by lease or permit. The procedures for all long-term usage requests are contained in Army Regulation 405-80: Management of Title and Granting Use of Real Property.

2-9. Unauthorized Access and Use of Training Facilities.

a. Disqualification of Individual or Group Requests. Requests from individuals or agencies for use of FHL will not be favorably considered if such utilization would:

(1) Conflict with provisions of regulations cited herein.

(2) Adversely affect or conflict with the facility's main functions of administration and training of Reserve personnel and maintenance and storage of supplies and equipment of the assigned Reserve units.

(3) Bring discredit to the Armed Forces or violate policies in AR 360-61 and other applicable regulations. Furthermore, attendance or participation in all functions will be consistent with DOD policy of nondiscrimination for reasons of race, creed, color, sex, handicap, or age. Participation in programs sponsored by organizations whose qualifications for membership are based on sex or national origin may be authorized only when the program is of primary interest or benefit to the community, and not for the special interest or benefit of the sponsoring organization.

b. Personal Property. In general, no facility on FHL can be used to repair, service, or manufacture privately owned equipment and accessories unless specifically provided for by HQDA directives. Privately owned equipment will not be garaged or stored in a government-owned or leased shop or equipment storage site. FHL training areas will not be used for parking privately owned vehicles to include trailers for living quarters.

c. Treasure Trove and Archaeological Sites. The land at FHL is protected by the Archaeological and Historical Preservation Act. No access will be approved for the private excavation of treasures or artifacts. Metal detectors may not be used by private individuals on FHL unless the individual is in search of a lost personal item. The use of any metal detectors must first be approved by the Range Officer.

d. Sanitary Land Fill. It is Army policy that Army-controlled real property will not be leased, licensed or permitted for landfill purposes, unless the landfill is solely to be used by DA.

e. Withdrawal of Privileges. The Installation Commander may withdraw use privileges from any person or organization that willfully disobeys rules and regulations prescribed for the firing range or whose conduct on the range or Installation warrants such action. The Installation Commander may refuse the use of firing ranges to any individual whose knowledge of the principles of weapons handling and marksmanship is so deficient as to pose a threat to life and property.

2-10. Specific Requirements for use of FHL Facilities.

a. Ranges. Crocker Range is open to AC military units and permanent party DOD civilians assigned to the Installation. In order to use Crocker Range, individuals or groups of individuals must attend the FHL Land Usage Briefing at Range Control. All military units will have an OIC and RSO whose responsibilities are detailed in AR 385-63 and FHL Regulation 350-2. The use of personal protective equipment, such as hearing protectors, for all individuals in the immediate vicinity of shooters is required while shooting on ranges and will be provided by the using unit or activity. OICs will ensure radio contact with Range Control is maintained during the times that the range is occupied. Type of munitions for use requires prior approval by Range Control.

b. Camping. FHL MWR operates a primitive camping facility. Camping is available at the FHL primitive campgrounds. Camping for non-Army users is not permitted in any other location on FHL.

c. Hunting, trapping, and fishing on FHL. See instructions and procedures in AR 200-1: Environmental Protection and Enhancement and FHL Regulation 420-26.

d. Wood cutting. Contact Environmental Division at (831) 386-2217.

e. Airfields. The non-Army use of DA airfields by others will require a lease, license, or permit as appropriate for the proposed use, except in emergency situations where loss of life is at stake. Opportunities for use of airfield are extremely limited due to the high volume of air traffic.

f. Landowner Easements. A Landowner Easement pass allows travel through FHL to access landowner's property. Should a pass be approved, the pass holder must take the prescribed route to their property without altering their route or stopping along the roadway. All training areas are off limits without a permit specifically authorizing entry to that particular area. Pass requests from landowners owning land adjacent to FHL should address their written request through the Directorate of Public Works, ATTN: Real Property Section, Directorate of Plans and Training, Law Enforcement Activity and the Commander with the following information: name and location of property to be accessed, the route that will be used, and the date and time the pass will be needed.

g. Public Affairs Office. FHL community relations programs develop public understanding of the Army and appreciation of the Army's contributions to the Nation. All requirements for educational use must be coordinated and approved through the FHL Public Affairs Office. Programs are designed to increase public awareness of the Army's mission, policies, and programs; inspire patriotism; foster good relations with the various publics with which the Army comes into contact at home and abroad; maintain the Army's reputation as a respected professional organization responsible for national security; and support the Army's recruiting and personnel procurement mission.

h. Motion Pictures, TV and Video Productions. Use of real property for non-government, entertainment-oriented, motion pictures, TV or video productions requires coordination and approval by DOD. Refer to AR 360-1: The Army Public Affairs Program for military real property and appropriate engineer regulations for civil works real property. Actions require appropriate real estate out grants for the use proposed.

i. Access to post may be denied if persons violate FHL rules, regulations, or policy. It may also be denied when unanticipated events require emergency post closures, closure for training events, or other incidents of a serious nature.

j. The FHL Police will issue yearly temporary passes Monday through Friday, 0730 to 1600. Landowners accessing commonly used training areas will be required to contact Range Control at (831) 386-2403/2503 DSN: 686-2403/2503, prior to traveling through FHL to their property to ensure that the area is clear. Failure to comply with above procedures may result in a revocation of the landowner's privilege to access private property through FHL.

2-11. Leases or Licenses.

FHL DPW real property can approve leases, or licenses to authorized personnel. Contact Real Property at (831) 386-2075.

2-12. Modification & Construction of Range Equipment and Facilities

a. Targets and Range Equipment.

(1) All requests for electronic target mechanism or fabrication of targets will be identified on FHL Training Support Form or in the Range Facility Management Support System (RFMSS) request.

(2) Range maintenance personnel will be present to assist in the Installation of all equipment down range. Range maintenance personnel will repair or replace any device requiring maintenance. Units will not attempt to install down range targets or replace any targets without a range maintenance representative present.

(3) Target Operators: Numerous firing ranges are equipped with Computer operated Target Systems. Users are required to provide target operators who have been certified by Range Control. Certification classes can be scheduled through Range Scheduling prior to the training exercise.

b. Construction or Modification of Training Facilities.

(1) Requests for construction or modification of ranges or training facilities will be coordinated with Range Control. No modifications to ranges or training facilities will be made by any unit without the approval of the Range Officer.

(2) Using units will not change or modify ranges or target operating mechanisms. Range Facilities or equipment requiring maintenance will be reported immediately to Range Control for repair or replacement. Training unit personnel will not attempt to repair any training facility or equipment.

2-13. Environmental Restrictions

a. Environmental and Historical Resource Protection

(1) General. To outline the implementation of criteria required for environment (natural and cultural resources) protection. These criteria will help ensure Soldiers of the 21st Century are provided a remote and realistic training atmosphere. The Department of Defense must act with care to ensure to the maximum extent possible that, in carrying out its mission of providing for the national defense, it does so in a manner consistent with national environmental policies.

b. Environmental Review. Per AR 200-2 (32 CFR 651) proponents are required to fund and prepare a Record of Environmental Consideration (REC) for most field training activities. A REC requires approval and signatures by the project proponent and Environmental Division. To complete a REC, submit an environmental review request form (see Figure 5-3: FHL Form DPT-5: Environmental Review) to the DPW Environmental Division at least 60 days prior to the activity. Activities that require permits, consultations, or additional documentation may take more than 60 days. The DPW Environmental Division will provide required environmental information and return the REC to the

proponent for the proponent's approval and signature. The REC is then to be retained by the unit. Contact FHL Range control for training exercise activities and FHL Directorate of Public Works (DPW) for construction and maintenance activities to initiate the environmental review process. If clarification is required for any action, contact the Range Officer at Range Control.

(1) Any activity that involves digging, disking, grading, or other soil disturbance, except hasty fighting positions or cat-holes.

(2) Any proposed undertaking with the potential to have any effect on cultural sites, historic properties, and natural resources.

(3) Mechanical excavation or deposition of fill in wetlands or waters of the U.S. and in all tributaries thereof seasonal or otherwise.

(4) Use of high explosive (HE) munitions.

(5) Use of fog oil or other obscurants.

(6) Assembly areas (other than at fixed ranges for the purpose of firing), bivouac sites, and sites containing more than 100 personnel and 25 vehicles in a single location.

(7) Vehicle decontamination and refueling

(8) Installation of permanent equipment, part of which includes an internal combustion engine (ICE) or other combustion device.

(9) Discharge of grey/black water or discharges to storm water and/or sewer systems.

(10) Disposal of chlorinated or otherwise treated water.

(11) Off-road vehicle travel in FHL TA 22 or the ASP.

(12) Demolition, remodeling, or repair of any structure.

(13) Prescribed/controlled burn fire use.

(14) Motor boat training activities in reservoirs.

(15) New development or construction, demolition of existing structures, or any undertaking which may affect a structure less than 40 years old which is located outside of the cantonment area.

(16) Pest control involving application of herbicides or insecticides within 200 meters of rare plants or vernal pools, aerial spray of insecticides or herbicides, fox-sized traps within the range of San Joaquin kit fox, application of poison baits or fDES dust, placement of mosquito fish, or removal of aquatic vegetation such as tules or cattails.

(17) Tree cutting and tree-trimming.

(18) Training exercises activities to be conducted in regulated and sensitive resource protection areas.

(19) Real estate activities requiring a lease, license, or transfer of ownership.

(20) Construction activities disturbing greater than one acre.

(21) Hookups to the potable water distribution system.

(22) Drawing water from, or discharging water to surface reservoirs, rivers, or lakes.

c. Training in Field Training Areas (TAs)

(1) Fighting positions can be constructed on FHL provided the unit has an approved environmental clearance from the FHL environmental office. Fighting positions are prohibited in the Los Padres National Forest. Clearance is not required for hasty fighting positions or cat-holes.

(2) All terrain disturbances such as foxholes, tank traps, hull/turret defilade positions, bunkers, strong points, trenches, and road construction will be approved by the Range Officer as part of the training support request. Units will submit overlays of proposed positions, barrier plans, and obscuration (smoke) operations for consideration and approval. Engineer blade work will be kept outside the drip line of trees and at least 50 meters from streambeds and rivers.

(3) Obstacle construction adjacent to improved roads will not disturb the surface, shoulder, road base, bridges, culverts, headwalls, wing walls, etc.

(4) Disturbance of stream or riverbeds by mechanical equipment is prohibited.

(5) Damming of streams or rivers is prohibited.

(6) Do not cut live vegetation for camouflage or concealment. Felling trees of any size is prohibited. Dead and down materials may be used for cover and concealment.

(7) All tank obstacles and defilade positions will be filled and properly compacted following the termination of training. Arrangements for re-vegetating such areas can be made with the ITAM Coordinator. Backfill and re-contour all excavations prior to clearance inspections.

(8) Remove all trash and refuse, especially food-related materials, in closed containers or bags. Remove all refuse materials from field areas to designated disposal areas.

(9) All materials brought to FHL must be taken out with the unit when it departs, including all litter, concertina, TOW and commo wire, and Class IV materials. FHL does not have a Class IV yard for the disposal of wire, barrier, or scrap material. Remove all ammunition, simulators, explosives, and pyrotechnics, and dispose/turn-in to Class V points IAW appropriate regulations.

(10) Fences exist to control livestock, define Installation boundaries, and protect property. Fences will not be cut or damaged. Escaped livestock can cause serious road accidents, wander into live fire SDZ's, or otherwise disrupt unit-training activities. All fences are considered "Off Limits".

d. Sensitive Resource and Historic Preservation and Military Land Use Regulations.

(1) Nine especially sensitive and unique cultural resource areas are recognized on FHL:

(a) Portions of Upper Stony Valley, within TA 12C.

(b) Portions of the San Antonio River and Mission Creek valleys encompassing Mission San Antonio and the Mission Period water system features within the cantonment and TAs 6 and 7.

(c) The area of the Historic Jolon town site and the Gil Adobe site.

(d) The southeast portion of TA 13W, bordered by Mission Road, KD Road, and small arms ranges.

(e) The southeast portion of TA 22, bordered by Jolon Road, B-9 Range Road, and San Antonio River.

(f) Portions of TA 22 west of Jolon Creek and south and eastern portions of TA13E.

(g) Portions of northern TA13E, north of Argyle Road.

(h) San Antonio River from the north end of TA 6B downstream through the east side of TA 29.

(i) Portions TA 25 western side.

(2) The following land use regulations for TA 12C are in effect:

(a) Cross-country dismounted transit through the regulated area is permitted unless revoked by the Range Officer.

(b) All digging of any kind is prohibited within the regulated area.

(c) All field training exercise vehicle transit through the regulated area is prohibited.

(3) Mission Period Water System. The following land use regulations are implemented for the northern portion of the cantonment and adjacent portions of TAs 6 and 7 in the vicinity of Mission San Antonio to avoid direct impacts from military activities on these and other nearby archeological sites and to reduce the negative aesthetic effects of noise and dust on the historic settings of Mission San Antonio.

(4) FTX vehicle transit off paved roads and Mission Creek Road is restricted to the following designated dirt roads: Tank trail (at the northwest cantonment boundary) and the connector road that intersects Mission Creek Road; a single defined track in the San Antonio River canyon; and to three spur access roads off Mission Creek Road. FTX and other vehicle transit are permitted on all paved roads and Mission Creek Road.

(5) To the extent possible, military vehicle convoys shall avoid or minimize transport near Mission San Antonio on the tank trail, Mission Creek Road, and Del Venturi Road on all Sundays.

(6) All military field training in that portion of the cantonment west of Silo Road and Sulphur Springs Road is prohibited except for dismounted infantry, which is restricted to the West Side of the San Antonio River south of Grid Line 86.

(7) Helicopter or other aircraft use of the Northwest Pass flight path over the mission vicinity shall be prohibited unless approved by the Officer or in case of emergency. Aircraft shall be re-routed to the Del Venturi Pass to the greatest extent possible.

(8) Protection of Jolon Town site and the Gil Adobe. The old Jolon Town site and the Gil Adobe are off limits for training exercises.

(9) Other sensitive resource areas. Military training permitted in the remaining sites includes on-road vehicle travel, foot traffic, and temporary landing by rotary aircraft.

e. Wildlife and Endangered Species Protection

(1) Several federally and state-listed threatened, endangered, and sensitive species exist on FHL. The Endangered Species Act of 1973, as amended, the California Endangered Species Act, and Army Regulation 200-1 regulate endangered species protection on FHL. "Taking" is defined as "harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to do." Harm includes the destruction of habitat. It is a felony offense, punishable by up to $50,000 in fines and one-year imprisonment, for any person to intentionally "take" a threatened or endangered species. The following land use regulations are enforced to eliminate or minimize direct impacts to sensitive species or their habitat:

(2) Units firing on ranges will take necessary actions to prevent injury to wildlife in their assigned range area. Under no circumstances will animals be fired upon. Units will immediately report injury or death of any wildlife to Range Control.

(3) Prior to initiating any activity listed in paragraph 5-2 review must be completed. See Figure 5-3: FHL Form DPT-5: Environmental Review.

(4) All personnel using TAs 22, 23, 24, 25, and 29 during the bald eagle winter use period will be informed that bald eagles may be present in the area and that shooting in the direction of bald eagles is prohibited. Intentional destruction of live or identified standing wildlife snag trees in any training area is prohibited.

(5) In TA 22, off-road travel is prohibited without the approval of the FHL Range Control.

(6) All personnel will be informed that any individual observing any threatened/endangered species during a live fire exercise will immediately notify the OIC. The OIC will inform troops of the presence of the animal(s) and shut down all targets within 25 feet of the animal, and all targets within the direct line of fire. The targets will remain shut down until the animal leaves the area.

(7) Prior to any firing in TA 22, the using unit must survey the area and flush any Tule elk that may be bedded down range or any bald eagles in the range line of fire.

f. POL Storage and Refueling Procedures

(1) POL storage facilities will be constructed IAW FM 10-67-1. The construction and location of all POL storage facilities will be submitted to FHL Range Control for environmental clearance.

(2) POL will not be stored within 100 meters of any waterway.

(3) Refueling points will have secondary containment berms (plastic-lined), spill kits, and fire extinguishers present.

(4) Facilities will be inspected periodically during the operation to ensure no spillage and/or seepage has occurred. If a spill has occurred, cleanup operations will be initiated immediately.

(5) No POL products will be stored on a slope greater than one foot rise per 20 feet of run (5% or 2.5 degrees). Each fuel transporter will carry a minimum of 100 pounds of POL absorbent.

(6) Care must be taken in handling and storing POL products to prevent see page into the ground. Waste POL products will not be burned, dumped in trash containers, deposited at refuse collection points, spread on the ground, or dumped in sewers, ditches, or streams. Waste POL will be placed in containers supplied by the unit and deposited at the waste POL collection point as specified by FHL Range Control.

(7) See Hazardous Waste Procedures below for information on POL spills.

g. Solid Waste, Hazardous Waste and Water/Wastewater Procedures

(1) Solid Waste Procedures

(a) Solid waste generated from messing facilities will be collected and disposed of at the FHL Refuse Collection Point.

(b) Remaining edible foodstuffs will be disposed of IAW appropriate regulations.

(c) Using units will dispose of foodstuff containers in the debris boxes at the FHL Refuse Collection Point.

(d) Burning or burying refuse is prohibited.

(e) Ordnance material will not be disposed of with refuse. Such material will be turned in and evacuated through channels to appropriate Class V supply points.

(2) Hazardous Waste Procedures

(a) Any individual who intentionally illegally dispose of hazardous waste could become personally responsible for the government liability incurred. Hazardous waste includes any hazardous material that can no longer be used for its original purpose. Common hazardous wastes are: Off specification fuel or oil, waste fuel or oil, spent solvents, waste paint, empty POL containers (five gallons or larger), broken vehicle batteries, wooden ammunition boxes showing an "P" code by the manufacturer, dirt or soil contaminated with any hazardous waste, spent magnesium, nickel cadmium, lithium, or mercury batteries, medical supplies (to include used needles and syringes, blood and plasma), and in some instances, military munitions. If there is any question about a substance being hazardous waste, contact the FHL Hazardous Waste Manager at (831) 386-2276.

(b) The Installation Commander is directly responsible for all oil and hazardous substance management and spill control. The Installation Commander or his designated representative is the Installation On-Scene Coordinator (IOSC) for all hazardous waste/material incidents.

(c) Each unit is responsible for the management of all oil and hazardous substances it generates. This includes spill clean-up and routine disposal.

(d) Each unit will appoint a Spill Control Officer (SCO) who will be responsible for implementing the unit's spill prevention, containment, and retrieval cleanup measures for all oil and hazardous substances that the unit generates during field training at FHL. Immediately report the type, size, and location of any spill to Range Control.

(e) Should a spill occur, and if it is safe to do so, stop the source of the spill. Contain the spill to the smallest possible area and divert the flow away from any waterways. Refer to the FHL Spill Procedures Card.

(f) Each unit should ensure that all vehicles have been serviced, i.e., oil, oil filters, antifreeze, hydraulic fluids, batteries, asbestos brake shoes, etc., prior to arrival at FHL.

(g) Each unit is to have an adequate supply of clean containers on hand to store and transport waste oil and hazardous substances. Use drip pans for vehicles when parked for extended periods of time and/or when leaks are apparent.

(h) When it becomes necessary to drain hazardous wastes from vehicles in the field, the following steps will be taken.

(i) All hazardous substances are to be contained in a clean, undamaged container with a tight fitting lid.

(j) Do not mix hazardous substances; use a separate container for each substance.

(k) Apply a hazardous material label to the container. Ensure the information section is completed.

(l) Units will make arrangements with the Environmental Office, FHL, for turn-in of hazardous waste prior to clearing and departing FHL. Appointments for turn-in can be made by calling the FHL Hazardous Waste Manager at (831) 386-2276.

(m) Transport for turn-in to the FHL "Central Hazardous Waste Accumulation Facility" is the responsibility of the unit.

(n) The unit SCO will immediately respond to all hazardous substance incidents and direct the containment, retrieval, clean up and removal operations using the unit's resources. All spills will be cleaned up immediately and arrangements made with the Environmental Office for turn-in of spill residue. If the spill involves 42 gallons or more, the SCO will notify Range Control and request assistance from the Fire Department. The SCO will coordinate with the Fire Department response team to provide unit resources, to include personnel, in support of the Fire Department's operations. Upon arrival, the Fire Department senior fire officer will be the FHL SCO. Any amount of hazardous material spilled in any waterway will be immediately reported to Range Control.

h. Use and Disposal of Water and Wastewater

(1) Field Messing:

(a) If field messing facilities are utilized, soakage pits for utensil washing will be established IAW FM 21-10. Grease traps will be utilized if applicable.

(b) Food scraps will not be buried or disposed of in streams, rivers, or open bodies of water. Solid waste will be collected and disposed of at the refuse collection point.

(c) Soakage pits will not be located within 50 meters of any water body (wet or dry).

(d) Collected gray water and water containing food grease shall be disposed of at the Waste Water Treatment Facility.

(2) Temporary Latrine Facilities (ex. Straddle trenches, urinal pipes, soakage pits) are allowed on FHL with an approved Environmental Review.

(3) Field Shower, Laundry, and Water Purification Points.

(a) Laundry, bath, and water points will be established IAW FM 21-10.

(b) Polluted water will be drained away from primary water sources to a sump large enough to handle all waste by-products.

(c) Water purification points will be sited in such a manner as to minimize destruction of vegetation and prevent erosion near waterways. Discharge of treated water to waterways and water bodies is prohibited without prior approval from Environmental Office.

(d) Environmental Office will inspect and approve all field laundry, shower, decontamination, and water supply points for environmental impact and wastewater discharge. No operation will commence prior to the unit receiving authorization to do so from the FHL.

(e) Using units are prohibited from washing vehicles in rivers, streams, reservoirs, and at water points. There are tactical vehicle wash points in the cantonment for units at FHL.

i. Police of Range and Training Areas

(1) Clearing Procedures

(a) Upon termination of training operations, the training sites must be cleared and inspected before the using unit is released from its responsibilities.

(b) Units must provide a clearing party detail to clear the sites. Unit representatives will coordinate with Range Control for an inspector. The unit representatives will pre-inspect the training site, paying particular attention to the applicable items listed below. The Range Control Inspector will check all items that pertain to the type of training site used, whether used or not.

(c) Units will be cleared in accordance with FHL Form DPT-14 (Figure 1-9). Units that require ASP support for dunnage turn-in, excess ammunition turn in, etc. must coordinate turn-in with the ASP directly.

(d) Unit representative will provide the following information to the FHL Range Inspector during clearing:

- Actual number of personnel
- Type(s) and number(s) of wheeled vehicles
- Type(s) and number (s) of tracked vehicles
- Type(s) and number(s) of aircraft
- Type and quantity of munitions utilized

(e) Training sites are not officially cleared until a Range Control Inspector has completed the inspection, and all hand receipts have been cleared.

(2) Standards of Police

a. All UXO within the police area will be marked, and the location, number, and type will be recorded on the Live Fire Data Sheet (Figure 1-8: FHL Form DPT-11) and UXO Disposal Data Sheet (FHL Form DPT 11-1). All UXO remains the responsibility of the using unit for disposition. Range Control will notify EOD for disposal of the UXO. EOD will respond based on the severity of the situation. Based on the response time for EOD the unit may be required

to provide personnel to guard the UXO until it can be disposed of. A class in clearance procedures, given by EOD, is mandatory before any surface clearance operation is undertaken.

b. All mechanical or hand-excavated holes, trenches, or craters will be filled.

c. Barbed wire, concertina wire, field communications wire, TOW wire, pickets, stakes, and sand bags will be recovered and taken with the unit when they clear FHL.

d. All trash and garbage will be moved to the FHL refuse collection point. No ammunition or ammunition residue, pyrotechnics, or hazardous waste will be disposed of in the debris boxes. There is a separate, designated debris box at the site for tires, track pads. NOTE: If the debris boxes are full, units will bag their refuse and stack it neatly against the chain link fence. Do not place the bags next to the debris boxes.

e. The disposal of trash or kitchen garbage except at the refuse collection point is prohibited. Depositing refuse or waste in unauthorized areas, and draining of gray water containing soap, detergent, contaminants or pollutants into streams, lakes, ponds, or reservoirs are prohibited. Trash will not be burned or buried. When violations of improper waste disposal are discovered, the responsible unit(s) will be directed to police the area until such clean up is deemed satisfactory. The unit(s) will be held accountable for any clean up expenses incurred, and may be subject to the imposition of fines by the Environmental Protection Agency (EPA) and possible permanent expulsion from FHL.

f. Hazardous waste items must be turned in to the hazardous waste accumulation site. All containers must be properly labeled, identifying the contents. See Section 5-13. Hazardous Waste Procedures.

g. Buildings and shower points must be swept, cleaned, and cleared of all extraneous materials.

2-14. Foot Marches and Vehicle Movement

a. Foot Road Marches

(1) Columns must march as far as possible off the road.

(2) Each column will have road guards posted at the front and rear at an adequate distance to ensure the safety of troops. At times of limited visibility these road guards will wear reflective devices visible to traffic and will have red lens flashlights or a similar device to signal approaching vehicles.

(3) Units must submit an overlay of the foot march route NLT 7 days prior to Range Control. The overlay will indicate start point, checkpoints, release point and a timeline.

b. Vehicle Movement

(1) Vehicle Convoys.

(a) All vehicle convoys must be approved by Range Control. Information and overlays for the convoy or road march must include: unit, number and type of vehicles, start time, entire route of march, expected time of arrival (ETA) of last closing vehicle.

(b) When vehicles depart improved roads, only established turnoffs (dirt roads) will be used. Indiscriminate departure from improved roads is unauthorized.

(c) Tracked vehicles will cross paved roads only at designated crossing sites on Jolon Road, Nacimiento-Fergusson Road, Del Venturi Road, Mission Road, and Interlake Road. Tracked vehicles are prohibited from maneuvering in the cantonment area.

(d) No tactical vehicles over ¾ ton are authorized on Infantry Road between Sulphur Springs Road and Mission Road (in front of the Hacienda).

(e) Tracked vehicles are prohibited from using all bridges.

(f) The maximum speed limit is 25 MPH unless otherwise posted. Unit commanders will take all necessary and appropriate measures to ensure that their personnel strictly observe speed limits when operating vehicles on the Installation.

(g) When traveling on the tank trail between FHL and Camp Roberts, two road guards (one controlling each direction of traffic) will be used when crossing Pleyto Road and North Shore entrance to San Antonio Road and also Interlake Road. Road guards will be equipped with traffic signal flashlights and reflector vests during periods of limited visibility. Coordination with FHL Range Control is required to ensure that all gates are open for the convoy between Camp Roberts and FHL. Contact Camp Roberts Range Control for access in/out of Camp Roberts.

(2) Vehicle Movement - General

(a) Stay on established roads and trails except during authorized training maneuvers.

(b) Obey all posted speed limits and established weight limits on roads and bridges. Route reconnaissance will be made prior to all movements, with particular emphasis on weight and width limitations. All road restrictions will be strictly followed.

(c) Avoid areas that are highly susceptible to erosion (e.g. steep slopes).

(d) Avoid neutral steers and sharp turns whenever possible.

(e) Do not drive on road shoulders or in drainages.

(f) Do not travel through sensitive natural and cultural resource areas marked with orange traffic cones or areas otherwise demarcated (e.g. signs, Seibert stakes).

(g) Exercise care to prevent damage to trees. Careless driving practices can destroy numerous trees, not only by running over them but also by scraping.

(h) Avoid parking vehicles directly under trees to prevent damaging their root systems. Root and soil compaction is one cause of tree loss.

(i) Maintain maximum use of established trails and range roads for administrative moves and road marches. Operators will not create new trails when existing trails are available for use.

(j) Vehicles exiting roads to establish positions adjacent to roads will exercise extreme care not to damage the shoulder of the road, ditches, drainages, fire lanes, fences, or cattle guards.

(k) Stream fording will be at established fording sites only.

(l) All off-road vehicular traffic (wheeled and tracked) is prohibited within 20 meters of any stream or lake bed (wet or dry) unless approved by the Range Officer.

(m) Operators of vehicles will strive to prevent excessive damage to vegetation cover in the proximity of the stream bank. Any vegetation that falls into a stream as a result of stream fording should be removed and scattered on the bank as part of the post exercise restoration.

(n) Fording of streams is prohibited in the Los Padres National Forest.

(3) Speed Limits.

(a) Range/Training Area speed limits are as follows:

Improved Roads	**Wheeled**	**Tracked**
Daylight	25 m.p.h. (40 kmph)	20 m.p.h. (32 kmph)
Darkness	10 m.p.h. (16 kmph)	10 m.p.h. (16 kmph)
Secondary Roads		
Daylight	15 m.p.h. (24 kmph)	10 m.p.h. (16 kmph)
Darkness	5 m.p.h. (8 kmph)	5 m.p.h. (8 kmph)
Off-Road		
Daylight	5 m.p.h. (8 kmph)	5 m.p.h. (8 kmph)
Darkness	5 m.p.h. (8 kmph)	5 m.p.h. (8 kmph)

(b) Speed limits may be reduced during periods of low visibility or inclement weather.

(c) Track Vehicles will have commo between TC and driver via CVC and intercom.

(4) Blackout Drive and Night Vision Goggles (NVG) Operations. To prevent vehicular traffic from interfering with or creating a potential safety hazard to training exercises during the hours of darkness, the following policies are established:

(a) Reduced Light/No Light areas have been designated on all ranges, firing points, observation posts and training areas on FHL. It is the responsibility of the chain-of-command to ensure and enforce the Light Discipline in the No Light/Reduced Light Areas.

(b) Within the designated areas, only blackout will be used by all vehicles. Vehicles of commercial design not equipped with blackout drive will use their parking lights, pull to the right and give way. Under emergency conditions, emergency and rescue vehicles are exempt from blackout restrictions. Commanders must be aware that special use permits are periodically issued for night time white light use.

(c) Commanders shall ensure that all vehicle operators are trained to drive in blackout and NVG operations. It is the responsibility of the unit's Chain of Command to ensure and enforce that drivers are NVG trained.

(d) Commanders should ensure that the distance between vehicles is 15 to 20 meters at a minimum when conducting road marches or convoys in blackout drive. Following distances should be adjusted as conditions change.

(e) Vehicle operations around dismounted troops or bivouac sites require ground guides.

(f) Blackout drive, blackout marker and blackout marches will not be conducted in the cantonment area or on any other public road or highway.

(g) Coordination and assistance with training areas supporting drivers training for NVG and blackout operations can be obtained from Range Operations.

(h) Deviation from the above stated requirements requires prior approval from Range Operations.

(5) GSA Vehicles and POVs.

(a) GSA vehicles and POVs are not allowed in Training Areas or on Live Fire Ranges unless specifically authorized by Range Control. Specific exceptions, including recons of non-firing ranges and training areas, designated routes and parking areas, must be included in the Training Support Requests and approval process. Range Control may issue a FHL Training Area Pass on a case-by-case basis.

(b) Permits issued by DES at the FHL entrance checkpoint are for the FHL cantonment area only.

(c) The presence of an "unauthorized POV" on a firing range is a violation of Installation policy and necessitates that the range be brought to a cease fire until the owner is found and the POV removed from the range.

(d) A POV found on the perimeter of the live fire training area indicates that the owner may be in the live fire training area. Appropriate ranges will be immediately ordered to cease firing until the owner is found. Range Control will be immediately notified when this condition exists.

2-15. Consumption of Alcohol and Controlled Substances

The consumption of alcoholic beverages and/or controlled substances on the ranges and in the training areas is absolutely forbidden.

Section III
Safety

2-16. Purpose

To establish safety guidelines for units and personnel utilizing FHL training facilities.

2-17. References

Refer to complete information in Appendix E: Safety and Risk Management. Required and related publications used in conjunction with administering FHL Regulation 350-2 are listed in Appendix A.

2-18. Responsibilities

a. Safety is a command responsibility; however, any person is authorized to order a halt to an observed activity if that activity involves the commission of an act that appears to be unsafe. Commanders must ensure that safety procedures are incorporated into all aspects of training in accordance with DA Pam 385-1. Commanders of all company/troop-size units or larger will appoint a safety representative in accordance with DA Pam 385-1.

b. FHL Range Control will provide a comprehensive Range Certification Briefing.

c. The Unit Safety Officer/NCO will:

(1) Coordinate with the supporting safety office, prior to arrival at FHL, to obtain mission safety requirements, accident reporting procedure guidance, and safety topics to be used in safety briefings.

(2) Serve as the single point of contact between the FHL Safety Office and the training unit.

(3) Attend the Range Control Land Use Briefing. If the unit safety officer/NCO cannot attend at the scheduled time(s), other arrangements can be made by contacting Range Control. Range OICs and Range Safety Officers (RSO) must attend this certification briefing before the unit is authorized to sign for requested training facilities. In addition, the Range OIC and RSO must attend a separate live fire briefing before executing any live fire exercises, this includes weapon familiarization and /or qualification ranges.

(4) Report all Class A and Class B accidents to Range Control immediately.

(5) Ensure that training units report Recordable Accidents through their command channels in accordance with DA Pam 385-40 to their supporting safety office with an information copy submitted to the FHL Safety Officer prior to clearing the Installation.

(6) Ensure that unit commanders are aware of the need to conduct collateral duty investigations required by DA PAM 385-40, Para 1-7c.

(7) Ensure that the contents of this publication reach troops at the operational level prior to unit deployment to FHL.

(8) Conduct accident investigations as required by AR 385-40.

(9) Submit a copy of any DA Form 285 to the FHL Safety Office prior to clearing the Installation. The FHL Safety Office is located in Building 238; (831) 386-2105; DSN 686-2105.

d. The supporting safety office of the unit will:

(1) Assist the unit safety officer/NCO with pre-deployment training.

(2) Forward, by memorandum through command channels, any special safety support required from the FHL Safety Office.

e. The FHL Safety Office will:

(1) Support the training unit commander and unit safety officers/NCOs.

(2) Coordinate actions for DA Form 285-1 (US Army Accident Investigation Report) investigations of Class A training accidents (Reference Appendix B). The FHL Safety Office will be notified immediately of all Class A and B

accidents through Range Control. Notification as required by HQ, USARC and the US Army Safety Center (USASC) will be made by the FHL Safety Office.

(3) Maintain an AT accident log and collect information copies of the DA Form 285.

Section IV
Communications and Warnings

2-19. Range and Training Area Communications

a. General Contact of Range Control.
FM 41.05
(831) 386-2403/2503
DSN 636-2403/2503

b. Emergency Assistance. Personnel in need of emergency assistance (fire, serious injury/fatality accident) will contact Range Control using one of the following methods:

(1) When Range Control is open, contact the office at the following:
FM 41.05
(831) 386-2403/2503
DSN 636-2403/2503

(2) If FHL Range Control is closed, call the FHL DES dispatch desk at (831) 386-2608/2884.

(3) When the radio is inoperative or nonexistent, the use of red smoke or red star cluster is appropriate. Care must be used to preclude starting a fire, which will further complicate the situation.

DO NOT DIAL 911 FROM A CELL PHONE; THIS WILL CALL THE CHP AND WILL DELAY EMERGENCY ASSISTANCE.

c. Communication/Information Management Support

(1) Units must provide their own FM radios for communications with Range Control. FM radio communications are mandatory from the conclusion of the advance party in brief until the trail party has received official clearance and been granted permission to leave the net. Each unit training at FHL will be assigned an administrative call sign and will continuously monitor the Range Control net on FM 41.05. "RANGE CONTROL" is the Net Control Station (NCS), and is operated by FHL Range Control personnel.

(2) Communications checks must be made every hour, on the hour, by all units occupying field-training facilities until they depart. Communications checks will be initiated by the NCS on a random basis. Units are cautioned that failure to adhere to communication requirements with Range Control constitutes a safety violation and is sufficient cause for requiring the unit to suspend training and/or clear the training facility. Upon the first occurrence of a unit failing to adhere to the above requirements, the unit will receive a reminder from RANGE CONTROL. On the second occurrence, RANGE CONTROL will dispatch a Range Inspector to the unit's location and determine the reason(s) for communications failures. Should there be a third occurrence, the unit will be instructed to "stand down until further notice" and the unit OIC will report to Range Control. Any further occurrences will be grounds for the unit being required to clear the training site.

(3) Participating aircraft are required to monitor Range Control FM 41.05 (RANGE CONTROL), "TUSI ADVISORY", VHF 126.2 (primary) or UHF 229.5, at all times while operating at FHL.
Tactical air control party must establish and maintain communications with TUSI ADVISORY at all times while operating at FHL.

(4) All units and activities will obtain tactical and non-tactical frequencies for use on FHL from the FHL Frequency Management Officer (Director of Information Management) prior to activating electrical/electronics equipment used for communications, surveillance, radar, aircraft control, navigation, weather, or directional finders. The format for requesting frequencies is contained in the FHL Form DPT-2: Training Support Request (TSR).

2-20. Warning Signals and Signs on Live Fire Ranges

a. Cease Fire. The command "CEASE FIRE" is immediately given by any person observing an unsafe condition that makes firing dangerous. This is followed by immediate notification of the commander or OIC, who will take appropriate action to correct the situation.

b. Warning Signals

(1) Units occupying standard live fire ranges will prominently display a red danger flag continuously during occupation. During hours of darkness, the unit will display a red light on the flag pole, adjacent to the range flag or on the range tower. Units will illuminate right and left range limit markers with red lights, flashlights or chem lights. Firing does not take place unless these conditions are met. The flag and red light will be provided by Range Control.

(2) Individual vehicles, tanks, fighting vehicles, and armored personnel carriers will display flags to show the vehicle's weapon status in accordance with the appropriate field manual. All firing vehicles, to include tanks and armored personnel carriers, will display colored flags during daylight hours and periods of good visibility. During nighttime hours and period of reduced visibility, colored lights will be shown. This requirement applies to conducting static firing, firing on the move, and while exiting the range. The color and meaning of the flags and lights are as follows:

RED	Vehicle engaged in firing; weapons must be pointed at the target area.
GREEN	All vehicle weapons are clear and elevated. Any live ammunition in the vehicle is properly stowed.
RED and GREEN	Vehicle is preparing to fire or the crew is performing a non-firing exercise. Weapons are clear.
RED and YELLOW	Vehicle has malfunction or misfire. Weapons are not clear but are pointed at the target.
GREEN and YELLOW	Vehicle has malfunction. All weapons clear.

a. Warning Signs. Signs warning of the danger of unauthorized entry into the live fire training area are posted approximately every 50 meters along the perimeter of the impact area.

b. Range Guards and Barriers

(1) Range guards and/or barriers must be used to prevent unauthorized or accidental entry into ranges/training areas.

(2) All range guards will be instructed in their duties, and will be in immediate contact (radio, wire, or voice) with the Range OIC or Range Safety Officer at all times. The range guards' primary duty is to prevent inadvertent or unauthorized entrance into the range area. They will advise the Range OIC or Range Safety Officer about all personnel and vehicles desiring entrance.

(3) The Range OIC or Range Safety Officer will provide range guards clear instructions on their duties and responsibilities. Written instructions are recommended. Range Control, FHL Police, EOD, Command Safety Office and emergency vehicles or personnel may not be denied entrance by the OIC.

Section V
Medical Support and Training Accidents

2-21. Medical Requirements

a. General. The FHL Medical Aid Station is equipped to handle minor emergencies and sick call only. For the current hours of the FHL Aid Station, call (831) 386-2516. For all other emergencies, FHL operates a ground ambulance and paramedic support through the FHL Fire Department available 24 hours/7 days a week. Emergencies are evacuated to either Mee Memorial Hospital in King City, CA or Twin Cities Hospital in Templeton, CA. Personnel(s) taken off the Installation are the Units responsibility to pick up. Aeromedevac support is provided year round thru CALSTAR, a private sector air ambulance company out of Gilroy, California. On occasion, the California Highway Patrol can also provide Aeromedevac capabilities. During peak AT season, Aeromedevac support is available through Camp Roberts, when operating. A contract Aeromedevac service is provided during certain periods of the year; contact Range Control to determine availably of the service.

FHL Fire Department (831) 386-2517	FHL Medical Aid Station Building 207, FHL (831) 386-2516
Mee Memorial Hospital 300 Canal Street King City, CA 93930 (831) 385-6000	Twin Cities Hospital 1100 Las Tablas Road Templeton, CA 93465 (805) 434-3500

b. Policy. Units conducting training at FHL are required to be medically self-sufficient. Medically self-sufficient refers to a level of care not requiring medical specialties such as battalion-level physician assistant and/or combat lifesavers. Units are also responsible for providing their own Class VIII supplies. The absence of medical personnel to support a unit's training activities is not, in and of itself, grounds for FHL Range Control to deny, curtail, suspend, or cancel a unit's training activities, with the exception of flame operations. Unit commanders will complete a risk assessment to determine the need for medical support for other training activities. Organic or attached medical personnel should treat most injuries. Evacuate the injured with organic vehicles only if the injury cannot be treated on

site. All USAR and ARNG personnel who utilize the FHL Medical Aid Station MUST have a Line of Duty Form (DA Form 2173) with the top (administrative) portion completed when they arrive at the Medical Aid Station.

c. Reporting Emergencies Personnel reporting emergencies to Range Control will not break communications until released by the responder. Times of radio transmissions/telephonic contacts will be logged.

2-22. MEDEVAC Procedures

a. Request for Air MEDEVAC Support.

(1) In the event of a serious injury or illness, and when time may be a factor in saving life, limb, sight, or to prevent undue suffering, air medical evacuation will be utilized if on station.

(2) The decision to request MEDEVAC will be made by the medic/combat lifesaver on site. If no such person is present, the ranking individual on site will make the decision.

(3) If available, air ambulance support can be requested through Range Control. Private sector air ambulance (CALSTAR) is available; however, the approximate flight time is 45 minutes from lift off.

(4) Requests for evacuation support beyond the unit's organic capability will be made by the senior officer or noncommissioned officer present based on the recommendation of the medic on-site, or the senior ranking person's best judgment in the absence of medical aid personnel. Under no circumstance will the recommendation of the medic on-site to request Aeromedevac be overridden. Requests will be routed as follows:

(a) FM radio (FM 41.05) or telephonic to FHL Range Control, (831) 386-2403/2503; DSN 686-2403/2503.

(b) Range control will then contact the appropriate agency IAW established internal MEDEVAC/emergency response procedures.

(c) If FHL Range Control is closed, incoming calls will be forwarded to the FHL DES dispatch desk. The DES direct number is (831) 386-2608/2884.

DO NOT DIAL 911 FROM A CELL PHONE.
THIS WILL CALL THE CHP AND WILL DELAY EMERGENCY ASSISTANCE

b. MEDEVAC Information. Requester will provide the following information:

Line 1	Location of pick up site
Line 2	Radio frequency Unit Call Sign Suffix
Line 3	Number of patients by Precedence
	Category A: Urgent
	Category B: Urgent Surgical
	Category C: Priority
	Category D: Routine
	Category E: Convenience
Line 4	Special equipment needed
	A: None
	B: Hoist
	C: Extraction equipment
	D: Ventilator

Line 5	Number of patients by type
	L+ number of litter patients
	A+ number ambulatory patients
Line 6	Number and type of wound, Injury, Illness (report wounds by type (i.e. bleeding) along with blood type)
Line 7	Method of making pickup site

	A: Panels
	B: Pyrotechnic signal
	C: Smoke (color)
	D: None
	E: Other
Line 8	Patient nationality and status
	A: U.S. military
	B: U.S. civilian
	C: Non-U.S. military
	D: Non-U.S. civilian
	E: Other
Line 9	Terrain description

c. Ground Ambulance Support Procedure.

(1) The FHL Fire Station will operate the ground ambulance when the Clinic is appropriately staffed.

(2) The ambulance may be used to transport any patient from FHL to Mee Memorial Hospital (King City) or Twin Cities Hospital (Templeton). This includes active military, AGR, ADSW, AT/IDT reserve and National Guard personnel, military family members, civilian employees, contractor personnel, and/or visitors as long as they are on FHL property.

(3) *Mutual Aid.* If a request for mutual aid for a medical emergency off post is received, FHL can respond with its ambulance and life support apparatus. However, FHL cannot transport any off post civilian. Only a Monterey County contract ambulance can provide such transport.

d. Notification.

(1) When FHL Range Control is staffed; the Duty NCO will notify DES, FHL Fire Department, FHL Safety Office, Installation Operations Center (IOC) and any other FHL Directorate/Activity necessary as the situation allows.

(2) When FHL Range Control is not staffed; calls are forwarded to FHL DES. Dispatch must be notified of serious accidents or injuries occurring on FHL. DES direct number is (831) 386-2608/2884. DES will investigate the incident and initiate a Serious Incident Report (SIR), if required, and forward the report through the appropriate government and command channels.

(3) The FHL Safety Office will be notified of all accidents, injuries, or illness. The Safety Office will investigate and/or initiate any reports deemed necessary. The FHL Safety Office can be reached at (831) 386-2105 or DSN 686-2105.

(4) Incident information requested by the media will only be released by the FHL Command Section.

e. Training Accidents.

(1) All training accidents/injuries will be reported to Range Control upon occurrence.

(2) The following training accidents require the Range OIC/Commander of the site to cease all training and "freeze" the site:

(a) Any fatality, regardless of cause.

(b) Any accident resulting in injury from use of weapons, ammunition, vehicles, machinery and aircraft.

(c) Any instance where weapons are discharged out of the safety zone for that range.

(d) Any premature detonation of explosives, regardless if any injuries occurred as a result of the premature detonation.

(e) Any incident resulting in accidents to civilians.

(f) Any incident involving breakage of items containing radioactive material.

(3) In the event of any training accident listed above, the following actions will take place:

(a) The senior commander on the ground will cease all training activities and freeze the accident site (as explained in section d below) and notify Range Control with all known details immediately.

(b) The senior commander on the ground will take charge of the accident site and oversee the evacuation of injured personnel.

(c) Upon arrival of the FHL Emergency Services/Fire Department, the accident site will be turned over to the fire department OIC.

(d) Once the site is determined to be safe, the fire department will release the scene to investigators (MP/CID/Command Safety Office).

(e) Range Control will issue guidance to the unit involved and notify the appropriate post agencies.

(4) The on-site commander will freeze the accident site in the manner shown below unless given different instructions from Range Control. Freezing the accident site requires:

(a) Only those actions necessary for rescue or recovery of victims and the initial on site investigation by the fire department/MP/CID/Command Safety Office will be allowed. Fatalities will not be moved from the accident location until released by an appropriate authority, i.e. MP/CID/Command Safety Office Staff/County Coroner investigators. The County Coroner is the final authority to move the fatality. Weapons or weapon systems will not be moved, adjusted or cleared except for the system being placed in a safe status.

(b) Access to the accident site will be restricted to those giving aid to victims, those fighting fires or providing first response to prevent intensification of the accident scene.

(c) All non-injured personnel involved in, or witnessing the accident will remain on site until interviewed by investigators and released by the Command Safety Office Staff. These include commanders, key leaders, RTOs, and unit range safety officers.

(d) All other unit personnel not involved in or witnessing the accident may depart the site upon direction by the Command Safety Office Staff. When the accident scene is released, training may continue at the direction of Range Control.

(e) Investigators will notify the unit and Range Control when the on-site accident investigation is completed and the unit is free to close the range/training area or is allowed to continue operations on that site.

(f) For off-post training exercises, these procedures should be implemented as much as is possible. Contact Range Division of the Installation and the appropriate G1/S1 for further guidance.

(5) Units will submit an accident report for each accident resulting in one or more lost workdays or property damage of $2,000 or more. For training exercises on post, the form will be submitted to the Command Safety Office within 15 days of the accident or before departing the Installation for units not stationed on FHL, but absolutely not later than 7 days following ENDEX. For off post exercises, the Exercise Safety Director/Officer will develop the accident report from the information provided by the unit to the G1 or S1, as appropriate.

(6) The Range OIC will prepare and submit a detailed report (in writing) to Range Control of the incident and circumstances contributing to the incident within 24 hours of the occurrence without exception.

Section VI
Range and Weather Hazards

2-23. Range Hazards

Military and civilian personnel at FHL must understand the life threatening hazards associated with touching dud ammunition. Personnel will not touch suspected dud ammunition and will immediately report 8 digit grid location and detailed description to Range Control (831) 386-2403/2503 or DES.

2-24. Weather Hazards

a. FHL Range Control monitors weather conditions and announces severe weather notices over the primary frequency net.

b. During the summer months, heat injuries are a serious threat on FHL. Range Control maintains Wet Bulb Globe Temperature (WBGT) for the Installation (see Table 2-1). The temperature is available at all times from Range Control. Changes in heat category are announced after it reaches "Heat Cat 2"over the primary frequency net. The reading is current at Range Control. Temperatures will be different throughout the Installation. Units are strongly advised to bring their own WBGT to monitor their training. Lightning presents real safety hazards of electrocution and initiation of explosives.

Table 2-24 1: Wet Bulb Globe Temperature (WBGT)

WBGT READING	ACTIONS RECOMMENDED
ADD 10 degrees FOR TROOPS IN MOPP P GEAR OR FLAK VESTS	
BELOW 82 WBGT CATEGORY 1	No precautions
82 - 85 WBGT CATEGORY 2	1. Discretion will be used in the conduct of strenuous exercise by and unseasoned troops. 2. Commanders will ensure that ample water is available for consumption in field training facilities. 3. Removal of work jackets may be authorized in confined areas, provided uniformity is maintained.
	1. All strenuous training, including marching at a standard cadence,

85 - 88 WBGT **CATEGORY 3**	will be reduced. Double timing will only be used to cross thoroughfares. Troops will be moved by route step with halts every 20 minutes. 2. The pace of training will be reduced as necessary by the immediate commander or instructor. 3. Extreme caution will be taken where physical exertion is required by troops in the direct rays of the sun. 4. All outdoor classes in the direct rays of the sun should be avoided. 5. All personnel will be encouraged to take frequent drinks of water. 6. Work uniforms may be modified as required by the commander.
ABOVE 88 WBGT **CATEGORY 4**	1. All strenuous training will be suspended. 2. Troops will be moved at a route step with breaks every 20 minutes. 3. Troops in formation will not carry weight in excess of 20 pounds. 4. Troops will not be in the direct rays of the sun longer than necessary. Outdoor classes in the sun should be avoided. 5. Ensure that all personnel are drinking water frequently.

Section VII
Range Fires

2-25. Range Fire Protection and Prevention

a. Policies.

(1) Range fires can occur during any month of the year, but May - October is considered the critical fire hazard period, and is the time to pay particular attention to fire prevention and control methods. Carelessness in the disposal of fire producing materials causes range wild fires which may threaten military equipment, structures, cause injury to personnel, or result in the loss of life

(2) During May - October, OICs using FHL field training sites will report to Range Control for information on current range fire hazards and fire fighting requirements.

(3) Pyrotechnic devices in training areas may be limited to smoke grenades in Number 10 cans or cleared-off areas, small arms ball (no tracers) and blank ammunition. Firing positions must be cleared for one meter in front of the direction of fire. Troops firing from a prone position or prepared fighting position in dry grass will elevate the muzzle to reduce the chance of igniting a vegetation fire.

b. Fire Prevention Restrictions Compliance with the following fire prevention restrictions is mandatory:

(1) Ammunition, fuel, and other flammables are not to be stored in areas where they may be involved in a vegetation fire. Areas for storage of these materials must be cleared and a firebreak established to preclude fire danger.

(2) Units using smoke pots or other incendiary devices that create smoke columns will ensure that the use of these devices has been properly requested and coordinated with Range Control 24 hours in advance; advance clearance by Range Control precludes observer reports of range fires and the resultant response by the Fire Department.

(3) Open fires are prohibited unless approved by the Range Officer.

(4) An area at least 30 feet in diameter will be cleared when firing flares, smoke pots, simulators, smoke grenades, and other devices capable of starting a vegetation or brush fire. Pyrotechnics such as nuclear detonation simulators will be detonated only after appropriate surface danger zone overlays have been submitted to and cleared by Range Control no later than 24 hours in advance of the proposed firing.

(5) Extreme care will be exercised when disposing of cigarettes, cigars, matches, and other smoking materials.

(6) Any vehicle having a defective muffler or exhaust system or equipped with a catalytic converter will be restricted to improved roads at all times.

c. Fire Fighting Procedures

(1) When a fire occurs, the following information will be immediately reported to Range Control, who in turn will notify the Fire Department: (UNITS MUST FOLLOW ALL INSTRUCTIONS FROM RANGE CONTROL PERSONNEL AND/OR EMERGENCY SERVICES.)

(a) Unit identification.

(b) Type, size, estimated rate of spread and direction of movement of fire.

(c) Six digit grid coordinate of the fire (include landmarks if possible) and cause, if known.

(d) Firefighting equipment immediately available. (If any)

(2) Units will report fires to range Control no matter how insignificant they may appear to be. Units will follow instructions issued by Range Control, to include temporary suspension of training activities.

(3) Any unit starting a fire will immediately take action to extinguish it. The unit will remain at the immediate location until released by the Fire Department. The Fire Chief or his designated representative is the Incident

Commander of all fire fighting activities. Units may request issuance of a ten (10) person fire fighting kit consisting of 5 gallon backpack extinguishers, shovels, and fire rakes.

(4) The FHL Fire Department will keep Range Control apprised as to whether Range Control should restrict the firing of tracer, incendiary, illumination, smoke grenades, and pyrotechnics to minimize the danger of range fires. In addition, aerial gunnery and the firing of all HE ammunition may be curtailed if the fire danger warrants such action.

(5) Fire fighting operations will take precedent over all other activities including tactical operations.

(6) Unit personnel required to assist the FHL Fire Department in fire suppression activities will remain OPCON to the Fire Department until released by the Incident Commander.

Chapter 3
Training Areas, Ranges, and Facilities

Section I
Training Area Descriptions

3-1. Purpose

This section provides a general description of the environment of FHL, including the climate, topography, hydrographic, and vegetation.

a. Climatic Brief. The climate is Mediterranean and generally semiarid. Summer daytime temperatures often exceed 100o F, with nighttime temperatures dropping to the mid 50s within two hours after sunset. The relative humidity during the summer ranges from 4 to 6%. Annual precipitation averages 19 inches and falls primarily between December and February. Winter temperatures average in the 60s during the day and with nighttime lows in the 30s.

b. Topography. FHL is located in the Santa Lucia Mountain range of southern Monterey County. These Ranges have topography of steep mountains with intervening valleys. Peaks and ridges exceeding 3,000 feet above mean sea level (MSL) surround northwest/southeast trending alluvial valleys varying in elevation from 800 to 1,100 feet MSL. Level valley landscapes are frequently relieved by low rolling hills. As the elevation increases, the valley margins gently slope upward to rugged stream-etched ridges.

c. Perennial and seasonal streams provide moderately well watered valley environments for riparian vegetation surrounded by oak dotted grasslands. Seasonal streams and springs water the upper elevations from late autumn to early summer. Man-made reservoirs are impounded behind earth-filled dams in several training areas.

d. Mixed oak/pine forests dominate mid-slope vegetation while chaparral species cover higher elevation ridges and peaks. Several varieties of oak, gray and Monterey pine, California bay laurel, cottonwood, sycamore; large shrubs such as Toyon and Ceanothus; native bunch grasses; berries; and numerous small flowering plants are found throughout the diverse FHL landscape.

e. These various vegetation communities provide habitat for large and small mammals including Tule elk (protected), black-tail deer, feral pig, San Joaquin kit fox (endangered), coyote, bobcat, badger, beaver, and ground squirrel. Varieties of birds such as bald eagle (protected), hawk, blackbird, woodpecker, quail, dove, and waterfowl are either permanent or seasonal residents.

f. During the summer and early autumn and throughout prolonged periods of drought, arid conditions prevail, particularly in the chaparral-covered upper elevations. Due to the vegetation types and frequently prevailing arid conditions, FHL is subject to fire.

g. Northern Boundary to Del Venturi Road: **TRAINING AREAS 1, 2, 3, 6** – Characterized by steep, hilly terrain with peaks to nearly 3,000 feet MSL. Dominated by shale, the rocky soils support both introduced and native grass species and mixed oak/pine forest, particularly on lower elevation slopes. Large stands of chaparral dominate the upper hills and ridges. Vegetation recovery following disruption is slow, and the soil is subject to erosion. Two perennial streams, Mission Creek and upper San Antonio River, flow south/southeasterly. Seasonal streams flow in a generally southerly direction, draining the peaks and mid-slope ridges. Two earth-fill dams impound water in TA 2. Milpitas Valley is situated in the southernmost portion of TA 2. This generally level valley is well watered by seasonal streams and the upper San Antonio River. Large, weathered rock outcrops border the bases of gently sloping hills around the valley margin. Unique environmental features include Upper Milpitas Valley archeological sites and the Painted Caves in TA 3. Milpitas Airstrip is situated in lower Milpitas Valley on the boundary between TA 2 and 6. Improved roads include Upper Milpitas Road bisecting Milpitas Valley; Mission Creek Road bordering TA 3 and 6; and Del Venturi Road bordering TA 1, 2, and 6.

h. Northeastern Boundary to Mission Road: **TRAINING AREAS 6B, 7, 10, 13E, 13W, ASP, Cantonment** - With the exception of the Cantonment, topography in these TAs is dominated by relatively low (less than 1,300 feet MSL) chaparral covered hills. Upper elevation soils generally are derived from shale, with small pockets of alluvial silts

deposited on level valley flood plains. Scattered individual as well as clusters of oak and pine occur mid-slope and on valley grasslands. Higher elevations in the northern half of the ASP descend in the southern portion to a level plain. Similarly, eastern hills bordering the Cantonment level out on the San Antonio River flood plain. Southerly draining streams eventually join the San Antonio River that flows south/southeast through the western half of the Cantonment. Historic documents suggest that oak grasslands dominated the vegetation prior to early ranching activities. The Cantonment presently contains Installation headquarters, housing, Tusi heliport, and Saber Field. Man-made reservoirs are situated centrally in TA 10 as well as in the northern and southern areas of the eastern half of the Cantonment. Improved roads include Upper Milpitas Road, bisecting TA 7; Sulphur Spring Road on the boundary between TAs 7 and 10; River Road on the southwest Cantonment boundary; and County Road G14 (Jolon Road), entering FHL at the eastern edge of TA 7, traversing the boundary between TAs 10 and 13, and bisecting the southern portion of TA 13. Reflected on current FHL 1:50,000 DMA maps, Training Area 13 have been subdivided due to the fact that it is bisected by Jolon Road. The portion of TA 13 on the east side of Jolon Road has been designated as TA 13E.

i. Northwestern Boundary to Del Venturi Road: **TRAINING AREAS 4, 5, 8** - Characterized by steep, rugged terrain between Del Venturi Road and the western boundary, ranging in elevation from 1,000 to 3,000 feet above MSL. Chaparral covers most of the upper elevation ridges and peaks. Oaks and small, open grasslands occur on the northern, eastern, and southern margins of TA 5. Seasonal streams drain these areas to the east as well as to the west, and springs are common. With the exception of Del Venturi Road on the eastern boundary of TA 5, and Nacimiento Road on the west boundaries of TAs 4 and 8, improved roads are limited to annually maintained boundary roads and fire breaks.

j. Southeastern Boundary to Gabilan Road: **TRAINING AREAS 20, 21, 22, 24, 25, 27, 29** - Characterized by low rolling hills and broad alluvial flatlands interrupted by prominent peaks, these TAs host a variety of vegetation communities. While mixed oak/pine woodlands and chaparral dominate, wetlands, grasslands, and riparian forests are also present. Numerous seasonal streams and springs provide ample water except during drought conditions. The San Antonio River flows southeast through TAs 22, 25, and 29, emptying into the San Antonio Reservoir on the east boundary of TA 29. Reservoirs are present in TAs 24, 25, and 27. Gabilan Valley, dominating TA 20, is a northwest/southeast trending, oblong valley with low rolling topography. Gabilan Creek flows southerly along the southwest edge of the valley. Most of TA 20, including Gabilan Valley, is designated as a High Explosive Target Area. El Piojo Creek flows south in a small, north/south trending valley in TA 24. The Sam Jones Gunnery Range/MPRC is contained within these TA's. TA 22 is a flood plain, sloping southwest from a MSL elevation of 945 feet to about 900 feet at the river. This nearly level area is relieved only by small hills rising less than 30 feet above the flood plain. Kit fox and bald eagle habitats are contained in these TA's. A prominent rock feature, The Palisades in TA 27, is an ideal location for rappel training. Tule Airstrip is in TA 25, and Piojo Airstrip is in TA 24. Improved roads include River Road on the boundary between TAs 21 and 22; Gabilan Road bisecting Gabilan Valley and running along the western boundary of TA 24 into the western edge of TA 27; Sam Jones Road runs east-west between TAs 24 and 27; and Bear Trap Road loops into the eastern half of TA 27.

k. Southwestern Boundary to Gabilan Road: **TRAINING AREAS 11, 14, 17, 18, 19, 23, 26, 28** – These TAs are similar in topography, vegetation, and lack of improved roads as TAs 4, 5, and 8. The highest peak, Burro Mountain in TA 23, rises to a MSL elevation of 2827 feet. Several perennial streams drain these training areas toward the Nacimiento River, which flows southerly through TAs 19, 23, 26, and 28. Springs are common. Several high elevation flats: Italian Flat in TA 26, Davis Flat in TA 28, and Little Oak Flat in TA 28 are enclosed in this rugged terrain. Unique environmental features include the Nacimiento River watershed and the Coast Ridge. With the exception of TA 28, these training areas are adjacent to the Los Padres National Forest. Improved roads and annually maintained fire breaks include Los Bueyos Road on the eastern boundary of TA 14, Salmon Creek Road on the Boundary between TAs 26 and 28, Old Man Road in TA 26, and Burma Road on the boundary between TAs 14 and 18. The Coast ridge Road follows the southwestern boundary of TAs 11, 14, 17, 23, and 26. McKern Trail in TA 11 follows a historic route linking the Coast Ridge Road with the interior, and is a primary dismounted route through the Los Padres National Forest.

l. Central: **TRAINING AREAS 9, 12A, 12B, 12C, 15, 16, 16B** - Characterized by northwest/southeast trending ridges and valleys, these training areas are dominated by generally level alluvial valleys. Savannah-like grasslands are dotted with individual and clusters of oaks. Oak forested hillsides rise from the valley margins. Perennial and seasonal streams flow southerly. One reservoir lies within TA 15 and another is on the northern edge of TA 9. These areas contain a high density of archeological sites. The Stony Valley High Explosive Target Area is within TA 12A. Site 8J, which is used primarily as a forward staging area, is on the boundary between TAs 15 and 16. Improved roads include Nacimiento-Fergusson Road running generally east-west from the cantonment to the coast through the central portion of FHL; San Miguelito Loop and the upper portion of Gabilan Road are in TA 15. A network of tactical vehicle trails and firebreaks are maintained within the Central training areas. TA 16B contains Schoonover Airstrip and Jackhammer Drop Zone.

m. Schoonover Landing Zone (LZ): This is a 5800-foot tactical assault (unimproved) airstrip that is used primarily for C-130 and C-17 assault landings and parachute operations.

Section II
Range Descriptions

3-2. Descriptions

The following section describes the ranges on FHL. Refer to the range SOP for a comprehensive description and procedures.

a. Basic 10m-25m Firing Range (Zero). This range is used to train individual Soldiers on the skills necessary to align the sights and practice basic marksmanship techniques against stationary targets. The range is primarily designed for training shot-grouping and zeroing exercises with the M16 and M4 series rifles. Alternate uses of this range include practice fire for pistols and shotguns. The range has a firing line with 50 firing points, with sandbags for prone supported firing positions. The targets are E-Type silhouettes, on wooden frames. Targets can be located at 10, 15, and 25 meters.

b. Combat Pistol Qualification Course. This range is used to train and test individual Soldiers on the skills necessary to identify, engage and defeat stationary infantry targets for day and night qualification requirements with pistols. The alternate use of this range is for M4/M16 rifles and shotgun reflexive fire. The range has a firing line with 12 firing points, with move-out lanes. Each firing point has a stake and ammo tray. The targets are automatic E-Type silhouettes at 5 to 25 meters. Targets are operated from the tower and scoring is automated.

c. Modified Record Fire Range. This range is used to train and test individual Soldiers on the skills necessary to identify, engage and defeat stationary infantry targets for day and night qualification requirements with the M16 and M4 rifles. Alternate uses of this range include practice fire for machine guns, pistols, shotguns, and 7.62mm Sniper rifle. The range has a firing line with 13 firing points, each with raised platforms for keeling and prone supported firing and also simulated foxholes / fighting positions. The targets are automated E-Type silhouettes at distances from 25 meters to 300 meters. Targets are operated from the tower and scoring is automated.

d. Crocker Range. This range is primarily used to fire privately owned weapons. The r
ange has a firing line with 4 covered firing points. The targets are E-Type silhouettes, on wooden frames, up to 100 meters. Range users are responsible for range setup.

e. Multi-Purpose Machine Gun (MPMG) Range. This range is designed for zeroing, training and qualification requirements with the M249 SAW and M240 machine guns. This range is used to train Soldiers on the skills necessary to identify, engage, and hit stationary and moving infantry targets. Alternate uses of this range include Sniper rifle firing. The range has a firing line with 4 raised firing platforms and 4 reinforced HMMWV firing positions. Targets are automated at distances from 100 meters to 1000 meters personnel and vehicle targets. Targets are operated from the tower and scoring is automated.

f. MOUT Sites. These ranges are used to train and test individual Soldiers as well as Squad, Platoon, and Company-sized elements on the skills necessary to effectively identify, engage and defeat enemy targets in a complex urban environment utilizing all assigned Soldier and unit equipment. The MOUT facility is representative of a small village or section of a busy urban neighborhood; it provides for any number of training scenarios, restricted only by the imagination and specific training objectives of the training unit.

g. Hand Grenade Inert Range (Non-Firing). This range is used to train Soldiers on the basic skills necessary to employ hand grenade throwing techniques using practice (inert) grenades. These techniques are executed against training objectives and emphasize distance and accuracy using targets and obstacles of different types. The targets are non-automated and scoring is manual. There are 5 firing points on this range. Targets include personnel, bunker, and a truck.

h. Hand Grenade Range (Live-Fire). This range is designed to satisfy the training requirement of throwing live fragmentation grenades. This range familiarizes Soldiers with the effects of live fragmentation grenades. The Hand Grenade Familiarization Range (Live-Fire) has 5 firing points; these firing points are not in accordance with TRADOC safety standards. The targets are non-automated and scoring is manual.

i. B-9 Gunnery Range. This range includes stationary targets for screening exercises for armored combat vehicles. It can also be utilized for small arms firing. The range has a firing line with 50 firing points, with sandbags for prone supported firing positions.

j. Multi-Purpose Range Complex (MPRC). This range is able to accommodate the M1 and M2 families of armored combat vehicles, aviation gunnery, dismounted live-fire, and the USMC Light Armored Vehicle (LAV). The MPRC includes a control tower, ammunition breakdown point, seven moving armor targets, 37 stationary armor targets, 156 stationary infantry targets, and 46 moving infantry targets.

k. Urban Assault Course. This range consists of five separate stations designed for small unit training in urban operations. This range is used to train and test individuals, teams, squads, and/or platoons on individual and collective tasks associated with military operations in urban terrain (MOUT). All targets are fully automated, computer driven, and scored from the range operations center.

l. Shoot House. This range is used to train and test individual Soldiers and squad-sized elements on the skills necessary to effectively enter structures and perform multi-room clearing actions while identifying, engaging, and defeating enemy targets utilizing all assigned and field expedient equipment. The Shoot house facility, constructed to represent a building with a series of interconnected rooms, provides for any number of forceful entry and room clearing scenarios. All targets are fully automated, computer driven, and scored from the range operations center.

m. Heat Trainer. The Humvee Egress Assistance Trainer (HEAT) is an up-armored Humvee chassis with a hydraulic motor that spins the vehicle in a 360-degree rollover simulation. The HEAT trainer pitches to the side at 25 and 30 degree angles so Soldiers are familiarized with the angle of a Humvee rollover.

n. IED DEFEAT. This training strives to create a realistic environment that Soldiers will encounter while in-theater.

o. Convoy Live Fire. This live-fire scenario gives individual soldiers greater confidence in their weapons proficiency, small-unit leaders confidence in their control of direct and indirect fires, and platoon leaders confidence in conducting the critical aspects of the TLP that are required for CS/CSS units to maneuver throughout the COE.

Section III
Facility Descriptions

3-3. Facilities

Complete details of the FHL training facilities are available on the DPTMS portion of the Installation website. Training Facilities include:

a. Obstacle Course (17994). A facility containing numerous obstacles designed for developing and measuring individual Soldier speed, agility, and coordination using various obstacles in an effort to reach the objective.

b. Confidence Course (17950). A structure designed for developing individual Soldier confidence and strength through a series of obstacles.

c. Rappel Training Area (17966). A training area that includes at least one structure used to practice rappelling (rope decent).

d. Bayonet Assault Course (17816). A facility designed for training assault techniques with a rifle and bayonet. These techniques are applied through a series of obstacles.

e. Hand-to-Hand Combat Pit (17948). A structure containing a circle of sand or sawdust for training in hand-to-hand fighting.

f. Land Navigation Course (17998). An area located within the training complex principally scheduled and used for mounted and/or dismounted map reading, terrain association, or navigational training.

g. Gas Chamber (17170). A building used for training personnel in the use of protective masks and the effects of chemical warfare.

h. Classrooms/administrative areas. FHL has limited administrative offices and classrooms. Classrooms and administrative areas will be requested in the same manner as training areas.

i. Dining Facility Support. Coordination with the Food Program Management Office (FPMO) is essential to help determine the best way to support your training event as we have limited Garrison and remote feeding capabilities. We have a garrison dining facility that has a total feeding capacity of 1,128 per meal that's designated to feed the entire Installation. Direct Coordination with the FPMO is required to ensure there will be enough seating capacity to feed your organization. All operational rations will be ordered through your internal supply channels and can be delivered to FHL. A complete Food Service Support Packet (FSSP) can be obtained through the FPMO located in building 285, or email @ rowdy.raade@conus.army.mil or by calling 831-386-3548/3546.

j. Schnoover Landing Zone. This is a 4100-foot tactical assault (unimproved) airstrip that is used primarily for C-130 assault landings and C-12.

Section IV
Integrated Training Area Management (ITAM) Program

3-4. Integrated Training Area Management (ITAM) Program

a. FHL is one of the last remaining remote training areas in the continental United States. FHL offers military units training opportunities that normally do not exist on other military Installations. Commanders have a responsibility to train for war in this environment while at the same time protects it so that future generations of soldiers will have the same training opportunities. All using units must ensure that the cultural and natural resources of FHL are sustained and protected.

b. The ITAM Program relies on its four components and integrated management from HQDA, ACOM/ASCC/DRU, and Installations to accomplish its mission.

c. The five components of ITAM are Range and Training Land Assessment (RTLA), Land Rehabilitation and Maintenance (LRAM), Sustainable Range Awareness (SRA), Training Requirements Integration (TRI) and

Geographic Information Systems (GIS). These components combine to provide the means to understand how the Army's training requirements impact land management practices, what the impact of training is on the land, how to mitigate and repair the impact, and communicate the ITAM message to soldiers and the public.

(1) RTLA collects baseline data on FHL's natural resources and monitors changes in these resources over time.

(2) LRAM provides a mechanism for land rehabilitation (e.g., re-vegetation, erosion repair and control measures, site hardening) where training activities dictate disturbances or training area improvements.

(3) SRA is a preventative approach that utilizes informational media such as Soldier Field Cards, briefings, posters, and videos to minimize or eliminate environmental disturbances. SRA is likely to be the most visible component to training personnel. Materials are available upon request by contacting the ITAM Coordinator through Range Control.

(4) TRI integrates the training mission requirements with the condition of FHL's natural resources.

(5) GIS is a foundational support component that provides locational information and specialized mapping capabilities that assist land managers and military trainers in making critical land use decisions.

d. Contact the ITAM Coordinator at (831) 386-2305 or through Range Control for additional information on the ITAM program and how it can enhance the training mission at FHL.

Appendix A
References

Section I
Required Publications

32 CFR 651
Environmental Analysis of Army Actions

AR 15-6
Procedures for Investigation Officers and Boards of Officers

AR 200-1
Environmental Protection and Enhancement

AR 200-4 2
Environmental Analysis of Army Actions

AR 210-21
Army Training Ranges

AR 310-2
Identification and Distribution of DA Publications and Issue of Agency and Command Administrative Publications

AR 350-1
Army Training

AR 350-19
The Army Sustainable Range Program

AR 350-4
Qualification and Instructional Firing with Weapons and Weapon Systems

AR 385-10
Army Safety Program

AR 385-15
Water Safety

AR 385-40
Accident Reporting and Records

AR 385-55
Prevention of Motor Vehicle Accidents

AR 385-62
Regulation for Firing Guided Missiles and Heavy Rockets for Training, Target Practice and Combat

AR 385-63
Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat

AR 385-64
Ammunition and Explosives Safety Standards

AR 385-65
Identification of Inert Ammunition and Ammunition Components

AR 385-9
Safety Requirements for Military Lasers

AR 385-95
Army Aviation Accident Prevention

AR 40-46
Control of Health Hazards from Laser and Other High Intensity Optical Sources

AR 40-5
Preventative Medicine

AR 420-90
Fire Protection

AR 75-1
Malfunctions Involving Ammunition and Explosives

AR 75-15
Responsibilities and Procedures for Explosive Ordnance Disposal

AR 95-1
General Provisions and Flight Regulations

AR 95-15
Certification and Use of United States Army Airfields by Other Than United States Department of Defense Aircraft

AR 95-2
Air Traffic Control, Airspace, Airfield, and flight Activities

DA PAM 350-38
Standards in Weapons Training

DA Pam 385-63
Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat (Revised draft supplement to AR 385-63)

DA Pam 385-64
Ammunition and Explosives Safety Standards

FC 71-4
Combined Arms Live Fire Exercise Planning (CALFEX)

FHL 200-3
FHL Environmental Regulation

FHL 385-1
Installation Safety Manual

FHL 420-3
Fire Protection and Prevention

FHL 700-1
Ammunition Logistical Procedure

FHL 703-1
Coal and Petroleum Products Supply and Management Activities

FHL ICRMP
Integrated Cultural Resources Management Plan

FHL SCP
Spill Contingency Plan

FM 100-14
Risk Management

FM 10-68
Aircraft Refueling

FM 1-140
Helicopter Gunnery

FM 17-12-1
Tank Combat Tables, M1/M1A1/M48A5/M60/M60A1/M60A3

FM 23-1
Bradley Fighting Vehicle Gunnery

FM 23-23
Antipersonnel Mine M18A1 and M18 (Claymore)

FM 23-24
Dragon Training

FM 23-25
Light Anti-armor Weapons

FM 23-27
MK19

FM 23-30
Grenades and Pyrotechnics Signals

FM 23-31
40 mm Grenade Launchers M203 and M-79

FM 23-33
66mm HEAT Rocket, M72A1, M72A2 (LAW)

FM 23-34
TOW 2 Training

FM 23-35
Pistols and Revolvers

FM 23-41
Sub Machine Guns, Caliber .45, M3 and M3A1

FM 23-65
Browning Machine Gun, Caliber .50 HB, M2

FM 23-85
60mm Mortar, M224

FM 23-9
M16A1 Rifle and Rifle Marksmanship

FM 23-90
81mm Mortar

FM 23-91
Mortar Gunnery

FM 3-11
Flame, Riot Control, and Herbicide Operations

FM 3-4
NBC Protection

FM 5-102
Counter Mobility

FM 5-103
Survivability

FM 5-250
Explosives and Demolition's

FM 6-20
Fire Support in Combined Arms Operations

FM 9-15
Explosive Ordinance Disposal Service and Unit Operations

TB 9-1300-385
Munitions Restricted or Suspended

TB MED 524
Occupational and Environmental Health: Control of Hazards to Health from Laser Radiation

TC 25-1
Training Land

TC 25-8
Training Ranges

TM 9-1300-200
Ammunition, General

TM 9-1300-206
Ammunition and Explosives Standards

TM 9-1375-213-12
Operators and Unit Maintenance Manual: Demolition Materials.

Section II
Related Publications

A related publication is merely a source of additional information. The user does not have to read it to understand this regulation.

AR 200-1
Environmental Protection and Enhancement

AR 210-21
Army Ranges and Training Land Program

AR 385-62
Regulations for Firing Guided Missiles and Heavy Rockets for Training, Target Practice and Combat

AR 5-3
Tables

AR 5-9
Intraservice Support Installation Area Coordination

FM 25-101
Battle Focused Training

MIL-HDBK-828
Laser Range Safety

Table 2-1 FHL Acreage
Installation Management and Organization

Section III
Prescribed Forms

DA Form 1687
Notice of Delegation of Authority-Receipt for Supplies

DA Form 2203-R
Magazine Data Card

DA Form 285
US Army Accident Report

DA Form 3056
Report of Missing/Recovered Firearms, Ammunition, and Explosives

DA Form 4379-1-R
Missile and Rocket Malfunction Report

DA Form 4379-R
Ammunition Malfunction Report

DA Form 5692-R
Ammunition Consumption Certificate

DA Form 581
Request for Issue and Turn-in of Ammunition

DA Form 7281-R
Command Oriented Arms, Ammunition, and Explosives Security Screening and Evaluation Record

DD Form 448
Military Interdepartmental Purchase Request

DD Form 5515
Training Ammunition Control Document

DD Form 626
Motor Vehicle Inspection

Appendix B
Acronyms and Abbreviations

AC
Aircraft Commander

ADSW
Active Duty for Special Work

AFFF
Aqueous Film-Forming Foam

AFSS
Automated Flight Service Station

AGL
Above Ground Level

AGR
Active Guard and Reserve

AHA
Alert Holding Area

AHP
Army Heliport

AIRFA
American Indian Religious Freedom Act

ALO
Air Liaison Officer

AMC
Air Mission Command

AR
Army Regulation

ARFF
Airport Rescue and Fire Fighting

ARNG
Army National Guard

ARPA
Archeological Resources Protection Act

ARTEP
Army Training and Evaluation Program

ASP
Ammunition Supply Point

AT/IDT
Annual Training / Inactive Duty Training

ATA
Airport Traffic Area

ATC
Air Traffic Control

ATTN
Attention

BFA
Blank Firing Attachment

BMT
Basic Medical Treatment

BRM
Bedrock Mortar

CA
California

CALFEX
Combined Arms Live Fire Exercise

CARP
Computed Air Release Point

CAS
Close Air Support

CBT
Computer Based Training

CCT
Combat Control Team

CDR
Commander

CFL
Cease Fire Line

CFR
Code of Federal Regulation

CHP
California Highway Patrol

CID
Criminal Investigation Division

CLFX
Combined Live Fire Exercise

CML
Commercial

COA
Course of Action

Co-Use
Coordinated Use

CPR
Cardiopulmonary Resuscitation

CPX
Command Post Exercise

CS
2-Chlorobenzylidene Malononitrile

FHL/INSTALLATION
Fort Hunter Liggett

CVC
Combat Vehicle Control

CVL
Carbine Visible Laser

DA
Department of the Army

DA PAM
Department of the Army Pamphlet

DCSLOG
Deputy Chief of Staff for Logistics, United States Army

DD
Department of Defense

Decon
Decontamination

DOD
Department of Defense

DODAAC
Department of Defense Activity Address Code

DODIC
Department of Defense Identification Code

DOIM
Directorate (or Director) of Information Management

DOL
Directorate (or Director) of Logistics

DPTMS
Directorate of Plans, Training, Mobilization, and Security

DPW
Directorate (or Director) of Public Works

DRMO
Defense Reutilization and Marketing Office

DTG
Date-Time Group

DZ
Drop Zone

DZSO
Drop Zone Safety Officer

EA
Environmental Assessment

EENT
End of Evening Nautical Twilight
51
ELF
Eye-Safe Laser Filter

EMD
Environmental Management Division

EMT
Emergency Medical Treatment

ENDEX
Exercise Termination

EOD
Explosive Ordnance Detachment or Explosive Ordnance Disposal

EPA
Environmental Protection Agency

EPT
Emergency Procedure Training

ETA
Expected Time of Arrival

FAA
Federal Aviation Administration

FAARP
Forward Area Arming and Refueling Point

FAC
Forward Air Controller

FAD
Finance Authorization Document

FAR
Federal Aviation Regulation

FARP
Forward Arming and Refueling Point

FCX
Fire Coordination Exercise

FHL
Fort Hunter Liggett

FL
Flight Level

FLIPS
Flight Information Processing System

FM
Field Manual

FOD
Foreign Object and Debris

FOD
Foreign Object and Debris (or Damage)

FPMO
Food Program Management Office

FSS
Flight Service Station

FTX
Field Training Exercise

GIS
Geographic Information Systems

GPS
Global Positioning System

GSA
General Services Administration

HADPA
Historical and Archaeological Data Preservation Act

HALO
High Altitude Low Opening

Haz-Mat
Environmental Management Office

HE
High Explosive

HMMWV
High Mobility Multi-Purpose Wheeled Vehicle

HQ AMC
Headquarters Army Materiel Command

HQDA
Headquarters Department of the Army

IAW
In Accordance With

ICRMP
Integrated Cultural Resources Management Plan

IFR
Instrument Flight Rules

IMC
Instrument Meteorological Condition

IOSC
Installation On-Scene Coordinator

IP
Initial Point

ISD
Installation Support Division

ITAM
Integrated Training Area Management

KD
Known Distance

LAN
Local Area Network

LAV
Light Armored Vehicle

LFX
Live Fire Exercise

LPNF
Los Padres National Forest

LRAM
Land Rehabilitation and Maintenance

LRF
Laser Range Finder

LRSO
Laser Range Safety Officer

LSA
Lake San Antonio

LSO
Laser Safety Officer

LZ
Landing Zone

MAC
Military Airlift Command

MAS
Medical Aid Station

MCO
Marine Corps Order

METT-T
Mission, Enemy, Terrain and Weather, Troops and Support Available --Time Available

MICLIC
Mine-Clearing Line Charge

MIPR
Military Interdepartmental Purchase Request

MOA
Military Operations Area

MOGAS
Motor Gasoline

MOI
Memorandum of Instruction

MOPP
Mission-Oriented Protective Posture

MOS
Military Occupational Specialty

MOU
Memorandum of Understanding

MOUT
Military Operations in Urban Terrain

MP
Military Police

MPMG
Multi-Purpose Machine Gun

MPRC
Multi-Purpose Range Complex

MRE
Meal, Ready to Eat

MSL
Mean Sea Level

MUTA
Multiple Unit Training Assembly (Battle Assembly)

NAFRA
Native American Graves Protection and Repatriation Act

NAS
National Airspace System

NBC
Nuclear, Biological, and Chemical

NCS
Net Control Station

NDB
Non-Directional Beacon

NEPA
National Environmental Policy Act

NFA
No Flight Area

NFPA
National Fire Protection Association

NHPA
National Historic Preservation Act

NHSA
National Historic Sites Act

NLT
No Later Than

NOE
Nap-of-the-Earth

NOHD
Nominal Ocular Hazard Distance

NOHDO
Nominal Optical Hazard for Direct Observation

NOTAM
Notice to Airmen

NSP
National Search and Rescue Plan

NVD
Night Vision Device

NVG
Night Vision Goggles

OHR
Operational Hazard Report

OPCON
Operational Control

OPTEMPO
Operating Tempo

PA
Public Address

PAX
Passengers

PERSTEMPO
Personnel Tempo

PIC
Pilot in Command

POC
Point of Contact

POL
Petroleum, Oil, and Lubricants

POV
Privately Owned Vehicle

PPR
Prior Planning Request

PVC
Polyvinyl Chloride

QASAS
Quality Assurance Specialist Ammunition Surveillance

RA
Regular Army

RAC
Risk Assessment Code

RCC
Rescue Control Center

REC
Record of Environmental Consideration

RETS
Remoted Target System

RFMSS
Range Facilities Management Support System

RP
Release Point

RSO
Range Safety Officer

RTLA
Range and Training Land Assessment

RTO
Range Training Officer

SAR
Search and Rescue

SAW
Squad Automatic Weapon

SCO
Spill Control Officer

SDZ
Surface Danger Zone

SFL
Start Fire Line

SITREP
Situation Report

SOP
Standard (or Standing) Operating Procedure

SRA
Sustainable Range Awareness

TA
Training Area

TAC
Tactical Aircraft Command

TADSS
Training Aids, Devices, Simulations, and Simulators

TAMIS
Training Ammunition Management Information System

TC
Tank Commander or Training Circular

TDY
Temporary Duty

TEWT
Tactical Exercise Without Troops

TIS
Thermal Imaging System

TM
Technical Manual

TOT
Time-on-Target

TPU
Tank Pump Unit

TRADOC
United States Army Training and Doctrine Command

TRI
Training Requirements Integration

TSC
Training Support Center

TSR
Training Support Request

TV
Television

UIC
Unit Identification Code

USACHPPM
United States Army Center for Health Promotion and Preventative Medicine

USAF
United States Air Force

USAR
United States Army Reserve

USARC
United States Army Reserve Command

USASC
United States Army Safety Center

USC
United States Code

USMC
United States Marine Corps

USN
United States Navy

USNR
United States Navy Reserve

UXO
Unexploded Ordnance

VFR
Visual Flight Route or Rules

VHIRP
Vertical Helicopter IFR Recovery Procedures

VMC
Visual Meteorological Conditions

VOR
Omni-Range Navigation System

WBGT
Wet Bulb Globe Temperature

WCG
West Coast Garrison

Appendix C
Forms

Forms start on following page

FHL Form DPT 2	FHL Training Support Request (TSR) *Revised 4 Jun 09. Previous editions are obsolete*

NOTE: Units must complete the TSR. Incomplete TSR's will result in a delay of scheduling. Only personnel listed below are authorized to make changes. ***Due to current construction projects, areas requested are subject to change.***

Submit TSR and supporting documents via email to the Training Division: RangeOps2@conus.army.mil Commercial phone numbers are: (831) 386-2510//3145. DSN: 686-2510//3145.
If unable to email, please fax to (831) 386-2766 or mail to: Commander, INSTALLATION, FHL, ATTN: AFRC-FMH-DTS, Jolon, CA 93978-7111.
Email is the preferred method of submission. Please call to confirm receipt of TSR and any documents that are sent.

1. General Unit Information

A. Unit:	**Date TSR Submitted:**
B. Unit Higher Headquarters:	**Component:** USAR, ARNG, USN, USNR, USMC, Other (specify)
C. Unit Identification Code (UIC):	**DoD Activity Address Code (DODAAC):**
D. Primary Point of Contact:	**Alternate Point of Contact:**
Phone:	**Phone:**
Fax:	**Fax:**
Email:	**Email:**
E. Unit Mailing Address: Include Zip Code, Office Symbol	
F. Type of Training: Annual Training, MUTA 4, MUTA 5, Other (explain)	
G. Personnel/Vehicle/Aircraft Strength:	

	DATE / TIME	Officers M/F	Enlisted M/F
Arrival Advance Party			
Arrival Main Body			
Departure Main Body			
Departure Rear Detachment			
Types of Vehicles	**Vehicle Quantity**	**Types of Aircraft**	**Aircraft Quantity**

H. Unit Training/Operations Objectives: (Individual MOS Training, Weapons Qualification, FTX, LFX, CLFX, FCX, CPX, TEWT, etc.)
NOTE Unit must provide:
(1) Concept of operations and training objectives.
(2) Overlays (convoy routes, foot marches, dig plans, obstacle plans, smoke/obscurant operations, surface danger zone diagrams, etc.) that support the training or live-fire exercise. These documents must be received before you will be allowed to sign for any training site or facility.
(3) Appointment Orders for OIC's and RSO's. Land Usage Briefings are given on Fridays at 1400 Hours at Range Control. Units are required to read, understand and comply with FHL 350-2 prior to conducting training.
(4) Units will provide a copy of their Risk Assessments for all training prior to signing for any training site or facility.

2. Scheduling of Facilities. All facilities and support will be requested and scheduled by the Training Division.

A. Training Area and Facility Requests. All training area and range requests are controlled by the Training Division (Bldg S-320C Range Control). Check each Training Area or Facility required and provide the training dates and times for the occupation of those areas. **Only request areas that will be used. Requesting a facility does not give you the TA unless so requested. Provide Actual Training or Firing Dates and Times for each area being requested.**

		Arrival Date / Time	Departure Date / Time
	TA 1		
	TA 2		
	North Land Nav Course		
	NBC Chamber		
	AV Ranch MOUT Site		
	Milpitas LZ		
	TA 3		
	TA 4		
	TA 5		
	TA 6A		
	Milpitas MOUT Site		
	Crocker Range		
	TA 6B		
	TA 7		
	TA 8		
	TA 9		
	TA 10		
	TA 11		
	TA 12A		
	Horton DZ		
	TA 12B		
	CLFX TA 12B		
	TA 12C		
	TA 13E		
	East Land Nav Beginner		
	East Land Nav Intermediate		
	TA 13W		
	25 Meter Zero Range		
	KD Automated Record Fire Range		
	Combat Pistol Qualification Range		
	Confidence Obstacle Course		
	Conditioning Obstacle Course		
	Rappel Tower		
	TA 14		
	TA 15		
	IED Lane (San Mig Loop)		
	8J MOUT Site		
	Patricia DZ		
	TTB 8J		
	8J Buildings		
	8J Tent		
	EPW Training Site		
	IMT Lane		
	TA 16A		
	Site 8 Re-Trans		
	TA 16B		
	Pugil Pit		
	Bayonet Assault Course		
	Hand Grenade Inert Assault Course		
	Rope Bridge Site		
	Schoonover Tactical Assault Airstrip		
	TTB Schoonover		
	Miller Shower Point		
	Lower Blackjack (Area around shower)		

		Arrival Date / Time	Departure Date / Time
	TA 17		
	TA 18		
	TA 19		
	TA 20		
	Demolition Site / Engineer Construction		
	Convoy Live Fire Range	*Temporarily Closed for Construction. Use CLFX TA 12B.*	
	Convoy Blank Fire Course	*Temporarily Closed for Construction. Use CLFX TA 12B.*	
	TA 21		
	TA 22		
	MPRC Ammo Holding Area		
	Combat Pistol Qualification Course (CPQC) Range		
	Multi-Record Firing (MRF) Range		
	25 Meter Zero Range		
	Machine Gun Range		
	Main Tank Tower		
	M203 Range		
	B9 Range (Firing points set-up for 25 meter Zero)		
	Hand Grenade HE Range		
	TA 23		
	TA 24		
	Shoot House (Live Fire)		
	Shoot House (Blank Fire)		
	Urban Assault Course (UAC)		
	TA 25*		
	TA 26		
	Palisades Rappel Site		
	TA 27		
	MOUT Site		
	South Land Nav Course		
	TTB Ward		
	TA 28		
	TA 29		
	HEAT (HUMMV EGRESS TRAINER)		
	88M Test Course (Main Gate Area)		
	Drown Proofing Facility (Post Fitness Center Pool)		
	Post Theater (305 Pax)		
	Classroom Building 166		
	TUSI Heliport		
	Drop Zone/Landing Zone		

*** Environmental restrictions apply to TA 25. Environmental Review required for any activity.**

B. Billeting Request: Include the Quantity by Male and Female Bays or Rooms, Arrival and Departure dates and times. For 2 person rooms send request directly to the FHL Billeting Office.

FACILITY	Quantity of Male/Female	Arrival Date/Time	Departure Date/Time
40-Person Open Bay			
Admin Office Areas			

3. Specialized Support Requests. All specialized requests must be coordinated with the Training Division. Provide a Memorandum to the Training Division requesting the support needed. All requests must be submitted by Training Division unless otherwise noted. Please call to confirm receipt of any documents that are sent. The Training Division will task the Ft Hunter Liggett Directorates to provide the support requested. Indicate support requests needed by checking the appropriate box and providing additional memorandums for each required service. Failure to do so will result in a delay of coordinated support.

	Chemical Latrines: USAR units must provide a Latrine Request if needed. All other entities must contract a latrine provider directly and arrange for delivery and payment. A list of providers will be provided if requested.

	Ice: Ice is a unit responsibility and can be obtain through a local contract. For information on how to obtain ice, contact the FPMO as indicated in the Dining Facility Support paragraph.

	POL Support: FHL offers retail and bulk fuel capacities of JP-8, MOGAS and other POL products. Memos must include DODAAC, fuel type, estimated quantity and number of fuel keys.
	DOL Vehicle Support: DOL has a limited number of administrative vehicles which are issued on a reimbursable basis. Provide a memo for request and method of payment Amount of reimbursable will be dependent upon request.
	Telecommunications Support: FHL controls computer interface, field phone hook-ups (MAGDROPS), frequency usage and other communications services. Provide a memo with specific support requirements.
	Radio Frequency: Units must submit a frequency request for any radios, communications or electronic equipment.
	Radio Support: Units must provide their own FM radio support to communicate with Range Control. A limited number of hand-held radios are available. Provide a memo for type of radio support requested, along with quantity requested.
	Integrated Training Area Management (ITAM): Soldier Field Cards, environmental awareness briefings, pre-exercise planning (avoiding sensitive cultural & natural resources), GPS/GIS. Located in Bldg 331, phone x-2305, Email: art.hazebrook@conus.army.mil
	Environmental Support: Activities described in FHL 350-2 require environmental clearance or for hazardous waste. Submit Environmental Reviews to the Training Division Not Later Than 45 days prior to training.
	Dining Facility Support: FHL Dining Facility has total feeding capacity of 1,128 per meal for the Installation. Direct coordination with Food Program Management Office is essential to ensure proper DFAC support. Memos must be submitted at least 60 days in advance with projected headcount and feeding plan. Operational rations must be ordered through unit's supply channels and can be delivered to FHL. A complete Food Service Support Packet (FSSP) can be obtained through the FPMO in Bldg 225, call 831-386-3944, or email: Rowdy.Raade@conus.army.mil
	Billeting: Provide a current DA 1687 for individuals to draw billets. If linen is requested, provide a memo for quantity. All keys will be picked up at Bldg 229. Phone: (831) 386-2644/2075 to schedule pick-up/clearing. Email: FHLBilletRequest@liggett-emh1.army.mil
	Arms Room: Units must provide the Access Roster and Police Check Worksheet NLT 14 days prior to the codes being issued. Roster will contain at least 2, but not more than 6 names, time period needed and the Commander's signature. Access codes will be picked up at DES upon arrival. Phone (831) 386-3882.
	MWR Support: For the Post Pool, Gym, Picnic grounds, etc, provide memo with the dates and supported requested. Contact the MWR manager Mr. Tertulien at (831) 386-2910. Email: Charlemagne.Tertulien@conus.army.mil
	Religious Support: If support is requested, contact the Chapel in Bldg 190, (831) 386-2808/2465. Fax: x-3102.
	Ammunition Supply Point (ASP): FHL contains a fully functional ASP for issue and turn-in. Hours of operation are 0730-1630 Hours, Monday thru Friday. All ammunition must be coordinated with FHL ASP. No HE ammo unless approved by RC. Submit DA 581 to the ASP in Bldg S-723, phone (831) 386-2614, Email: John.Torkelson@conus.army.mil *Note: To draw ammunition, all units must bring their DA 581 & DPT-15 to be signed and approved by the Training Division prior to drawing.*
	Equipment Concentration Site (ECS-170): The DCSLOG, 63rd RSC, USARC manages and controls the equipment from ECS. Units must first contact the ECS Site Manager and determine the availability of equipment (vehicles, radios, etc) and make initial coordination. Phone (831) 386-2213/3598. Fax: (831) 386-2449
	AAFES/Commissary: If AAFES support is requested, call (831) 385-4585, Bldg 80. If Commissary support is requested, call 386-2190, Bldg 83.
	Transient Lodging Requirements: Available for TDY and temporary stays. For reservations, contact the Lodging Office in Bldg 196. Phone (831) 386-2511/2108. Email: Pamela.Duke@conus.army.mil

FAD and MIPR Requirements: Mailing address for all Finance Authorization Documents (FAD) (USAC units) or Military Interdepartmental Purchase Requests (MIPR): US Army Fort Hunter Liggett, Attn: Resource Management Office, Bldg 312, 9th Street, Dublin, CA 94568, Commercial Phone: (925) 875-4420/4423, Fax: (925) 875-4424

FHL Form DPT 3	Environmental Memorandum of Understanding (MOU)

HEADQUARTERS
FHL, CALIFORNIA

AND

UNIT COMMANDER OR REPRESENTATIVE
OF TRAINING UNIT AT
FHL, CALIFORNIA

MEMORANDUM OF UNDERSTANDING
ON
UTILIZATION OF FHL
AND
PROTECTION OF CULTURAL RESOURCES

1. **PURPOSE**: This memorandum constitutes a formal agreement between the Commander, Fort Hunter Liggett (FHL) and the Training Unit Commander or representative training within FHL boundaries to:
   a. Integrate historic preservation with planning and conducting military training.
   b. Provide guidelines for protection of all FHL cultural resources, to include but not limited to: archeological sites, historic structures, cemeteries, and landscape features.

2. **REFERENCE:** FHL Training Regulation 350-2 and FHL Integrated Cultural Resource Management Plan (ICRMP).

3. **OBJECTIVE:** This Memorandum of Understanding (MOU) effectively incorporates historic preservation into military training.

4. **ARCHEOLOGICAL SITE INVENTORY:** As of September 2000, approximately 33% percent (57000 acres) of FHL is systematically surveyed for cultural resources and about 600 documented archeological sites represent prehistoric and historic period land use. Of these, 38 contain fragile surface features (architectural feature, confirmed human remains, or other, similar feature).
   a. Prehistoric archeological remains include stone flake scatters; flaked and ground stone tools; depressions in bedrock (BRMs); and midden (locally darkened soils with or without marine shell). Less common features or items include quarries; rock art painted (pictographs) or pecked on (petro glyphs) rock surfaces; house pit depressions; exposed human remains; and/or rock shelters. Prehistoric sites may be small, simple sites: sparse lithic flake scatters/single BRM or complex sites with many features.
   b. The following terms are defined:
      1) Lithic Scatter: Waste materials resulting from the manufacture of stone tools.
      2) Midden: Soil altered by the incorporation of charcoal, ash, shellfish, bone, artifacts, and structural remains associated with human occupation of a site.
      3) Bedrock mortar cups: depressions, often deep, about 3-4 inches in diameter, on bedrock outcrops.
      4) Archeological survey: Investigation of an area by means of a pedestrian walkover to determine cultural resources.

c. Historic-period archeological sites may be as simple as domestic refuse scatters (cans, glass, or ceramic) or complex homestead sites with structural remains (adobe melts, stone foundations, or other constructions materials), wells, farm implements, and/or exotic vegetation. Portions of mission San Antonio water system contain dams, reservoirs, and rock lined ditches within FHL.

5. SITE PROTECTION: Avoidance of archeological sites is the most effective protection. Sites are inspected prior to and following ground-disturbing activities (e.g., digging or vehicle use). Sites can be flagged, staked, or coned for avoidance when ground-disturbing activities are planned nearby. Unit commanders may request avoidance measures for sites by contacting the Range Officer.

a. Archeological sites with fragile surface features potentially at risk by training activities are marked with orange traffic cones or other methods identified by the Range Officer. Area within cones is OFF LIMITS and will not be disturbed.
b. Issuance of archeological clearance documentation is required in advance of any ground disturbing activities in areas not archeologically surveyed or which contain known archeological sites.
c. The Range Officer is authorized to approve ground disturbance in archeologically surveyed areas where no known sites are recorded and may request survey in areas not previously inventoried.
    1) No digging with hand or mechanical excavation (except hasty fighting positions and "cat holes") is permitted without clearance.
    2) All high explosive (HE)/demolition plans involving placement of targets or mine fields; use of HE such as grenades, mortars, and artillery must be approved by the Range Officer and require archeological clearance documentation.
    3) All troop and vehicle concentrations over an extended period of time (100 or more persons, 25 or more vehicles, for periods of 72 hours or longer in an area 100 meters in diameter) such as an administrative bivouac or field hospital must have an archeological clearance.
    4) In the event that buried or otherwise obscured cultural resources are encountered during ground disturbing activity, activity in the vicinity of the find(s) will cease until the item(s) can be evaluated by a qualified archeologist. Immediately notify the Range Officer. Buried items may include, but are not limited to, stone flakes and artifacts, midden soil with shell or bone, human remains, historic trash dumps or other cultural features.

6. THE LAW:

a. The law requires that if Indian burials or any skeletal remains be encountered during any activity, all activity in the area of the discovery must cease and the find must be reported to the Range Officer. Further, it is a ***felony offense*** for any person to offer to or to sell, purchase, use for profit, or transport for sale or profit Native American human remains (Native American Graves Protection and Repatriation Act).
b. It is a ***felony offense***, punishable by a fine not greater than $100,000 and one year imprisonment, for any person who attempts to or excavates, removes, damages, or otherwise alters or defaces any archeological resource that was excavated or removed from Federal lands (Archaeological Resources Protection Act).

7. DURATION OF MOU: This MOU remains in effect until the unit commander or representative of the training unit gains clearance from FHL Range Control.

COMMANDER FHL	COMMANDER OR REPRESENTATIVE TRAINING UNIT

FHL Form DPT 4	Record of Environmental Consideration (REC)

To: FHL Range Officer	From:
Training Activity / Project Title:	Anticipated date and/or duration of proposed action (Day/Month/Year)
Brief description of proposed activity:	
Proponent /Unit Commander Name/ Signature:	Date:

Rationale for using Record of Environmental Consideration (Choose one):	
☐	Adequately covered in existing FHL Long-Term Training and Testing Environmental Assessment (EA), dated November 1995. The REC may be viewed at DPT Operations and Scheduling, FHL.
☐	Qualified for Categorical Exclusion Number: _____, AR 200-2, Subpart D (32 CFR 651) because:

FHL Environmental Manager Name/ Signature:	Date:
FHL Range Officer Name/ Signature:	Date:

FHL Form DPT 5	Environmental Review

I. General Information			
Date Received ENV:	Received By:	Record Number:	
Date of Request:	Project Timeline:	Directorate or Unit:	DPW 4283 Number:
Signature of requester / proponent:		POC name and phone number:	
Area of potential effect (APE – size of excavation or disturbance):			
Project description (Detailed locations and descriptions are required for items included in the Environmental Checklist, FHL Reg. 200-3):			

II. Training Exercises			
Number of tracked vehicles:	Number of personnel:	Number of wheeled vehicles:	Type of ammunition (specify if HE):
Organization/Unit:			
Name/Rank of Project Officer:	Title/function:	Telephone number:	

III. Environmental Review Restrictions		
Natural Resources / Wetlands		
Fish & Wildlife / Endangered Species:		
Cultural Resources:		
Hazardous Waste / Materials:		
Regulatory:		
NEPA:	Reason for using Record of Environmental Consideration:	
	☐ Adequately covered by FHL Long-Term Training and Testing EA, 1995	
	☐ For review at the INSTALLATION Environmental Office	
	☐ Categorical Exclusion Number: _____, AR 200-2, Subpart D 32 CFR 651, (and no extraordinary circumstances exist as defined in paragraph 4-3) because:	
Environmental Review has been completed with the above restrictions: IF ARCHEOLOGICAL REMAINS OR EVIDENCE OF ENDANGERED SPECIES ARE FOUND DURING THE COURSE OF A PROJECT, STOP THE ACTIVITY IN THE VICINITY OF THE FIND AND CONTACT ENVIRONMENTAL OFFICE IMMEDIATELY AT (831) 386-2763.		
☐ Approved		☐ Disapproved

Gary Houston, Environmental Manager	Date

FHL Form DPT 7	Co-Use Agreement

Priority Unit Commander or Representative and
Secondary Unit Commander or Representative

COORDINATED USE (CO-USE) AGREEMENT
for

Utilization of FHL Training Area(s)

A Co-Use agreement exists between the Priority Unit: _____
and the Secondary Unit: _____
for the following training areas: _____
from: _____ to: _____

Terms of the Co-Use agreement (e.g., entire training area or portions thereof (grid lines), time limits, for SDZ only, road march, flight restrictions, etc.):

The following unit has the responsibility for clearing the training area IAW FHL Regulation 350-2:

Priority Unit:	Signature (Name / Rank):	Date:
Secondary Unit:	Signature (Name / Rank):	Date:

Range Officer or Representative:	Date:

THIS AGREEMENT MAY NOT BE CANCELLED UNLESS BOTH PARTIES CONSENT.

AGREEMENT NOT VALID UNLESS SIGNED BY THE RANGE OFFICER.

FHL Form DPT 8: Range Briefing Procedures

Unit: _____ **Unit Phone Number:** _____

Unit Rep will initial each block and Sign on the back

____ 1. Ensure all required forms are in the unit training folder prior to their arrival.
Ensure unit representative is current for the Land Usage Briefing and current Appointment Orders are on file prior to signing for facility.

____ 2. All Risk Assessments, Route Overlays, Surface Danger Zone (SDZ) range fan(s), Ammunition and Training Device Usage Form (DPT-15), Road barrier/blockade overlays, Dig plan overlay(s), and Smoke operations overlay(s) must be Approved Prior To signing for facility.
*Memo requests for closing any public road must be submitted NLT 72 hours in advance.

____ 3. Have unit read and sign Record of Environmental Considerations.

____ 4. Unit Call Sign will be: _____
*A letter identifier will be assigned if the unit is part of a larger element and is conducting separate training.
*Unit will notify Range Control when they Initially occupy any TA or facility.
*Hourly Radio Checks will be conducted every hour at the top of the hour.
*SITREPS will be reported at 0800, 1200, 1600, and 2000 hours.
*FM 41.05 is exclusively for Range Control. It is NOT a unit net.
*Radio communications will be maintained at all times or training will be suspended.

____ 5. MEDEVAC Procedures: Range Control will be contacted if MEDEVAC is required.
*Unit will provide information using 9-Line MEDEVAC Request format.

____ 6. Accidents or Incidents: Units will notify Range Control Immediately of any accidents on incidents occurring on FHL.
An Accident Incident Report (FHL Form 2-142-R) will be completed and submitted to Range Control NLT the end of the Training day for the following:
*Any accident involving a fatality, probable permanent disability, or damage in excess of $500,000 requires special handling. Assist and care for the injured, and secure the scene for follow-up investigations.
*Lesser accidents or incidents involving personal injuries or equipment damage will also be reported to Range Control.
*Hazardous Spills.
*Units are responsible for completing SIRs.

____ 7. All holes dug must be filled in. No digging with mechanical devices under the drip line of trees. Cutting live trees and using live vegetation for camouflage is prohibited. Do not disturb wildlife or wash vehicles in rivers or streams. Gray water sumps will be a minimum of 50 meters from waterways or areas subject to flooding. An approved dig plan is required for anything except "Hasty" fighting positions.

____ 8. All materials brought by the unit will leave with the unit. This includes trash, barrier material(s), concertina/barbed wire, commo wire, and ammunition residue.

____ 9. Tracer Ammunition may be used year round at the fixed ranges.
*Pyrotechnics may be used year round if cleared through the Fire Dept and only after the area has been cleared of fire hazards. Units may be required to utilize additional safety precautions.
*Changes in fire hazards may result in pyrotechnics being suspended even after previously approved.
*Smoke and CS will not be used within 1000 meters of the Installation boundaries and/or 500 meters from any paved roads.
*Pyrotechnics overlays with grid locations, DTG, and type will be approved by Range Control Operations prior to use.
*All UXO found/created by the unit will be marked, cordoned off, and reported to Range Control with an 8-digit grid and method used to mark location.

____ 10. Check RFMSS request, DA Form 581, and FHL Form DPT-15 for approved ammunitions.

____ 11. All speed limits on post will be observed. Speed limit in the TAs is 25 mph unless otherwise posted.
*Blackout drive is not allowed on any Cantonment area roads, Mission, Del Venturi, Nacimiento- Fergusson, Sam Jones (from Jolon Rd to River Rd), Jolon, and Argyle Roads.

____ 12. Unit will notify Range Control prior to vehicles departing Cantonment for training and training areas back to Cantonment.
*Convoy plans to depart Cantonment on (DTG) _____ Plans to return on _____
*Unit plans to occupy training site at (DTG) _____ to _____

LIVE FIRES:

____ 13. Check Surface Danger Zone Overlay:
OIC Name/Last 4:_____
RSO Name/Last 4:_____
Range Occupation Date/Time:_____
Weapons and Ammo to be fired:_____

____ 14. Provide unit a copy of the Range Safety/Operations Checklist (DPT-9).
*Ensure unit understands that this form must be Completely, Accurately, and Legibly filled out and returned back to Range Control at the end of the day.
*Ensure the unit understands:
60 Minute Countdown Procedures.
Requirements to report "First Round Down Range."

____ 15. Plot barrier locations on overlay. Get a second opinion.

____ 16. Fixed Ranges will have a dedicated Air Guard at all times while range is occupied with radio communications to All OICs/RSOs of the complex.
*Live Fires requiring road guards will have radio communications to the OIC/RSO at all times.

HAND RECEIPTS:

____ 17. Hand receipt all Training Areas, Sites, Facilities, Equipment/materials (other than targets) issued from Range Control.
***Take unit to fixed ranges and facilities to conduct inventory of items on hand receipt.**

____ 18. Ensure POCs Name, Phone number, Unit is printed legibly on the hand receipt and that hand receipt is signed.

CLEARANCE PROCEDURES:

____ 19. Unit received a copy of Range Inspector Clearance Report (DPT-14).

____ 20. Unit will coordinate 48 hours in advance prior to clearing TA(s). All other facilities will be done a minimum of 24 hours in advance. Clearing will not be scheduled for 30 min prior to sunset or during the hours of darkness.

____ 21. Unit OIC/RSO will have a clearing party (minimum of 5 personal), with trash bags and necessary equipment, at the time set up below to police up any trash, brass, wire, etc, found in the unit's areas.
*Failure to provide a clearing party may result in clearing being rescheduled.
*If discrepancies are found when you first arrive at site, report it. Otherwise it becomes your responsibility to police it. This includes the roads leading in and out of the training area.

____ 22. All clearing will be conducted at the time specified below.
*Unit POC will check the area thoroughly prior to the scheduled inspection by Range Control personnel.
*Failure to meet at the specified clearing time or have area policed will result in being re-scheduled at the earliest convenience of Range Controls schedule, not the unit schedule.
*Re-Inspections may be conducted 1 Hr later unless otherwise arranged.

____ 23. Clearing POC Name:_____ PH #:_____
Clearing Date/Time will be:_____

Name / Signature of Unit Representative:_____

Signature of Briefer:_____ **Date/Time of Briefing:**_____

____ **Ensure pertinent information is recorded on Unit Status Board in Staff Duty Room.**
____ **Place folder in "ACTIVE" files in Staff Duty Room.**

FHL Form DPT 9: Range Live Fire Operations Checklist

RANGE:	UNIT:	DATE:
OIC COMPLETE NAME/LAST 4:	RSO COMPLETE NAME/LAST 4:	

BEFORE USE: The OIC must obtain a YES or NA (if applicable) for each item before declaring that firing can commence. If the status of any item is unknown, firing must be delayed until corrective action has been completed. **OIC will sign this form and return it to FHL Range Control upon completion of firing.**

#	ITEM	YES OIC Initials	NO Stop Re-Check	N/A OIC Initials
1	Live Fire Range/ TA properly scheduled and documentation on site			
2	All necessary equipment has been drawn and is on site			
3	All necessary weapons manuals onsite			
4	SDZ has been approved by Range Control			
5	Roadblocks, and all Guards (with Commo to OIC/RSO) are in place IAW Barrier Plan			
6	First Aid kits / Medical support on hand (as required/per Commander's Assessment)			
7	MEDEVAC procedures posted for easy accessibility			
8	FM 41.05 Radio communications with Range Control established and maintained at all times Radio checks with RC will be conducted every hour at the top of the hour. Checks with guards will be done 10 minutes prior to RC radio checks			
9	Range flags and night lights are displayed			
10	Ammunition received and counted at issue IAW appropriate regulations			
11	Only authorized ammunition is present on range			
12	Ammunition being properly stored and guarded, fire extinguisher present			
13	Ammunition being prepared for firing only as immediately needed			
14	Ongoing total ammunition accountability by quantity and type during firing and at completion			
15	Designate established Misfire pit that is easily identifiable			
16	Safety briefing presented to all personnel involved in range activity prior to firing. *Minimum Requirements:* Range Commands Limits of Fire Cease Fire Signals Ammo Control Hearing protection Helmet/Flak vest requirements Misfire, malfunction, clearing procedures MEDEVAC, Fires, Emergency procedures			
17	Complete thorough area downrange sweep for personnel and wildlife			
18	Initiate "60 Minute Countdown" with Range Control, provide OIC and RSO information.			

	TIME	INITIALS UNIT	RC
Occupy			
60 Minute Countdown			
30 Minute Countdown			
15 Minute Countdown			

Range Inspector Signature:	Time:

#	ITEM	YES OIC Initials	NO Stop Re-Check	N/A OIC Initials
19	After Range Control personnel inspects barriers and/or guards and signs DPT-9, Request "Hot Time"			
20	Report "First Round Down Range" to Range Control			
21	Upon completion of firing, contact Range Control and request "Cold Time"			

	TIME	INITIALS UNIT	RC
Hot Time			
First Round Down Range			
Check Fire / Hot Time			
Check Fire / Hot Time			
Check Fire / Hot Time			
Cold Time			
OIC / RSO Changes	**TIME**	**INITIALS UNIT**	**RC**

#	ITEM	YES OIC Initials	NO Stop Re-Check	N/A OIC Initials
22	Ensure all weapons have been properly cleared			
23	Provide Range Control number of Personnel trained, Ammunition DODICs, Number of rounds fired			
24	Unexploded Ordnance (List grid, type, quantity at bottom, fill out DPT-11-1)			
25	Ensure all required information has been recorded on DPT-9 Checklist			
26	Ensure that range is policed, excavations have been filled in, and all wire recovered for turn in			
27	Ensure unexpended ammunition, brass, pyro residue is properly handled and accounted for and ready for turn in			
28	Contact Range Control for clearance			
29	Notify Range Control unit is departing range			
30	Return DPT-9 and keys to Range Control			
31	Clear Hand Receipt			

Number of personnel on range		
Number of personnel trained		
Weapon System:	**DODIC #**	**# of Rounds Fired**

OIC Signature:	Date:
RSO Signature:	Date:

DPT-9 received at RC by:	Date / Time:

FHL Form DPT 10: Personnel Safety Briefing Checklist

RANGE:	UNIT:	DATE:
OIC:	RSO:	

#	ITEM	YES OIC INITIALS	NO Stop Re-Check	N/A OIC INITIALS
1	Is firing being conducted IAW applicable FMs and ARs?			
2	Are Range Safeties present on the firing line and at assigned observation points?			
3	Have all personnel received a safety briefing?			
4	Have all personnel been briefed on the location of fire extinguisher(s), first aid kits? MEDEVAC, Fire, Misfire procedures?			
5	Are firers who arrive later given a complete safety briefing prior to firing?			
6	Are firers assigned a firing order?			
7	Are all personnel on the firing line wearing hearing protection devices?			
8	Are all personnel on the firing line wearing Kevlar helmets?			
9	All personnel clear from down range area?			
10	Are all fire commands given from the Range Tower only?			
11	Are all movements to, from, and on the firing line controlled by the Range Tower?			
12	Are weapons observed and controlled against excessive elevation and deflection?			
13	Are Range Safeties ensuring that weapons are carried at Low ready with the muzzle pointed Down range and the Safety "On" during movements?			
14	Are weapons being cleared and inspected by positive safety checks (magazines removed, bolt to the rear or breach open, safety on, barrels rodded) by Range Safeties during the cease fire prior to movement to, from and along the firing line?			
15	Is there a designated firer search control point for ammo and loaded weapons before leaving the firing line?			
16	Is firing stopped when notified by Range Control to do so?			
17	Is firing stopped whenever there is an unsafe condition (personnel, equipment, low flying aircraft, wildlife) in the SDZ?			
18	Firers weapons will be cleared IAW applicable FMs, TMs, TCs, unit SOPs, and FHL regulations.			
19	Are weapons clearing procedures being repeated three times for each weapon before it leaves the firing line?			

FHL Form DPT 11	Live Fire Data Sheet

OPENING INFORMATION			
UNIT:		DATE:	
	NAME		RANK
OIC			
RSO			
TRAINING AREA/RANGE			
FIRING POINT(S) 8-DIGIT GRID COORDINATE			
LIMITS OF FIRE 8-DIGIT GC (MAGNETIC)	LEFT LIMIT		RIGHT LIMIT
DOWN RANGE SWEEP COMPLETED	TIME:		
BARRIER CHECK COMPLETED	TIME:		
NUMBER OF SOLDIERS ON RANGE			
COUNTDOWN			
60 MINUTE	TIME:		INITIALS:
30 MINUTE	TIME:		INITIALS:
15 MINUTE	TIME:		INITIALS:
5 MINUTE	TIME:		INITIALS:
HOT TIME	TIME:		INITIALS:
1ST ROUND DOWN RANGE	TIME:		INITIALS:
CLOSING INFORMATION			
COLD TIME	TIME:		INITIALS:
UNEXPLODED ORDNANCE (UXO)		YES	NO
8 DIGIT GRID COORDINATES OF UXO			
LOCATION VERIFIED BY RANGE INSPECTOR			
NAME OF INSPECTOR			
NUMBER OF SOLDEIRS TRAINED		NUMBER OF INTERATIONS	

WEAPON(S), AMMUNITION, AND NUMBER OF ROUNDS FIRED		
WEAPON TYPE	AMMUNITION	NUMBER OF ROUNDS

NUMBER AND EXTENT OF INJURIES:			
	NAME	SIGNATURE	DATE
COMPLETED BY			
REVIEWED BY OPERATIONS			
REVIEWED BY RANGE OFFICER			

FHL Form DPT 11-1: Unexploded Ordnance (UXO) Disposal Data Sheet

When receiving a call concerning UXO, obtain and record the following information:

DATE:	**TIME:**	**Method of Notification** (i.e., FM, telephone, etc.):
Notifying Unit:		**Notifying POC Name:**

8 Digit Grid Location		**Type of Ordnance**	**Number of rounds**	**Description of how site is marked**
Site 1				
Site 2				
Site 3				
Site 4				
Site 5				
Site 6				

If site is not marked, instruct the unit to do so.
Range Control personnel will meet the unit and be shown the exact location of the UXO.

Range Control personnel will verify the UXO, it's exact location, adequately marked, area blocked off (if needed)	
Name of Range Inspector:	Date / Time:

Contact 87th Ordnance Detachment (EOD) at DSN: 359-8301/8202/8303 or CML: (415) 603-8301/8302/8303. Provide them with the same information provided on this form.	
Name/Rank of EOD representative contacted	

If the 87th EOD is unable to respond, contact the 30th CES/CED (EOD), Vandenberg AFB at CML: (805) 605-9961, or DSN: x9961 (24-hours).	
Name/Rank of EOD representative contacted	

Record which EOD unit will be on site and expected DTG of arrival	
Record any information instructed by EOD:	

Ensure that the Range Inspector verifying the location of the UXO is notified of EODs arrival in order to escort them to the site.
For UXO reported by a firing unit as part of the LFX: Ensure all data concerning the type, number, location, and description of the UXO matches the information contained in the training packet.

DISPOSITION:

Log DTG of actual disposal of UXO by EOD	
Log Name and Rank of EOD representative	

ROUTING:

When disposal of the UXO is complete, place a copy in the unit's training packet and forward copies to the following:		
	Operations	
	Range Officer	
	Safety Office	

FHL Form DPT 12: MEDEVAC Procedures

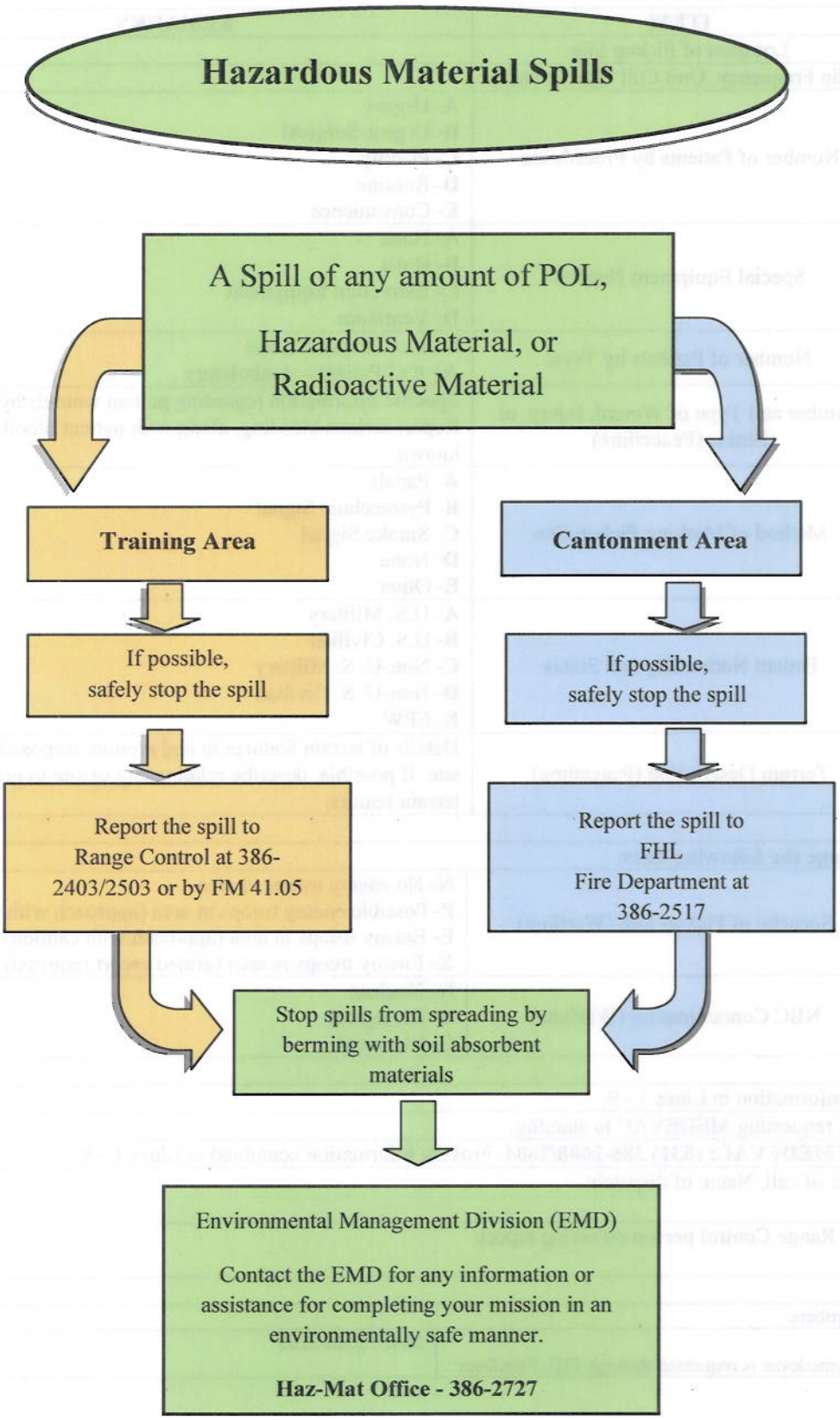
LINE #	ITEM	REMARKS
1	Location of Pickup Site	
2	Radio Frequency, Unit Call Sign & Suffix	
3	Number of Patients by Precedence	**A-** Urgent **B-** Urgent-Surgical **C-** Priority **D-** Routine **E-** Convenience
4	Special Equipment Needed	**A-** None **B-** Hoist **C-** Extraction Equipment **D-** Ventilator
5	Number of Patients by Type	**L+** # of Patients- Litter **A+** # of Patients- Ambulatory
6	Number and Type of Wound, Injury, or Illness (Peacetime)	Specific information regarding patient wounds by type. Report serious bleeding, along with patient blood type, if known.
7	Method of Marking Pickup Site	**A-** Panels **B-** Pyrotechnic Signal **C-** Smoke Signal **D-** None **E-** Other
8	Patient Nationality and Status	**A-** U.S. Military **B-** U.S. Civilian **C-** Non-U. S. Military **D-** Non-U. S. Civilian **E-** EPW
9	Terrain Description (Peacetime)	Details of terrain features in and around proposed landing site. If possible, describe relationship of site to prominent terrain feature.

Wartime, change the following lines:		
6	Security of Pickup Site (Wartime)	N- No enemy troops in area P- Possible enemy troops in area (approach with caution) E- Enemy troops in area (approach with caution) X- Enemy troops in area (armed escort required)
9	NBC Contamination (Wartime)	N- Nuclear B- Biological C- Chemical

Read back all information in Lines 1 - 9.
Instruct person requesting MEDEVAC to standby.
Notify **DES of MEDEVAC: (831) 386-2608/2884** Provide information contained in Lines 1 - 9
Log Date, Time of call, Name of dispatch:
Name/Rank of Range Control person receiving report:

Other Phone Numbers:	
Fire Dept: 2517 CALSTAR Aeromedevac is requested through FHL Fire Dept	MAS: 2516/3133

FHL Form DPT 13: Hazardous Spill Notification Procedures



FHL Form DPT 14: Range Control Clearance Report Fixed Ranges

UNIT:	**UNIT POC:**
RANGE:	
RANGE INSPECTOR:	
DATE & TIME OF INSPECTION:	

FIXED RANGE CHECKLIST	YES	NO	NA
Latrines clean			
Range storage sheds clean & swept out			
Range shed equipment accounted for & stacked neatly (see photos)			
Trash can empty			
All serviceable frames returned to shed & stacked neatly, Targets removed (see photos)			
Broken target frames removed and stacked neatly outside shed			
Replacement frames required			
Target silhouettes cleaned off (used targets removed)			
Unserviceable silhouettes & targets properly disposed of			
Broken equipment (list below)			
Circuit breakers turned off			
Tower clean & trash removed			
Tower equipment turned off			
Tower equipment accounted for			
Computer & printer covered			
AC/Heater left on			
Brass & links picked up			
Aiming/Target block stacked neatly			
Positions raked & swept off			
Area policed (to include bleachers)			
Clearing barrels policed of brass & trash			
Target lifters left in upright positions so batteries will charge			
Solar panels swept off			
Light Sets in Down position			
Light Sets fluids topped off & PMCS sheets filled out			
Unit equipment removed from range			
Guard shacks trash removed & swept out			
Keys returned to Range Control			
Hand receipts cleared			

List all Maintenance or Improvements needed:

ITEM	WORK ORDER NUMBER	DATE SUBMITTED

Number of Personnel Trained:	Number of Personnel on Range:

Type of Wheeled Vehicles:	Quantity:
Type of Tracked Vehicles:	**Quantity:**
Type of Aircraft:	**Quantity:**

RANGE IS CLEARED	RANGE IS NOT CLEARED
DATE & TIME OF RE-INSPECTION:	
RANGE RE-INSPECTION RESULTS:	

Unit Representative Name & Signature		Date:
Range Inspector Name & Signature		Date:

FHL Form DPT 15: Ammunition and Training Device Usage

To:	FHL Range Control Operations	Thru:	FHL Fire Department

From: Unit / POC Name	
Training Activity / Project Title:	
Date and Duration of Training Event (DDMMMYYYY)	
Start Date:	End Date:

Ammunition and Training Devices						
DODIC	NOMENCLATURE / DESCRIPTION	QUANTITY	TRAINING AREA / RANGE	UNIT CONSTRUCTED Y / N	APPROVED Y / N	FIRE DEPT RESTRICTIONS

ALL Ammunitions will be listed. No HE ammo unless approved by RC.

ALL Training Devices will be listed to include Unit Constructed (Barricades, Facades, Targets, IEDs, etc.):

- Must be registered with Range Control (quantity, description, location, type of training supported)
- Must be marked as "Training Aid"
- Must have Unit Name, POC, Phone Number ON THE DEVICE
- Must be cleared and inventoried by unit upon range clearance

Units must have FHL certified OICs and RSOs prior to utilizing ammunition or devices

Units will be charged for overtime, EOD reimbursement, and any other expense related to FHL's reaction to devices not adhering to these requirements

Unit Commander's Name / Print: **Unit Commander's Name / Signature:**	**DATE:**
Fire Inspector's Name / Print: **Fire Inspector's Name / Signature:**	**DATE:**
Range Control Operation's Print: **Range Control Operation's Signature:**	**DATE:**

FHL Form 2-142-R: Accident / Incident Report

1	Unit	
2	Date & Time of Accident / Incident	
3	Grid Location of Accident / Incident	
4	Type of Accident (Weapon, Vehicle, etc.)	

5	Individual (s) Involved:			
	Name	Rank / Grade	SSN	Extent of Injuries
a				
b				
c				
d				
e				
f				

6	Equipment Involved (Weapon, Vehicle, etc.)	Extent of Damages
a		
b		
c		
d		

7	Narrative / Cause of the Accident / Incident:

8	Action Taken or Contemplated to Prevent Recurrence:
Submit to range control within 24 hours	

Report Completion Date / Time:			
Report Completed by:			
Name:	Rank:	Unit:	Phone Number:

FHL Form DPT 30	Aviation Prior Planning request (PPR) (Airspace Use and Landing Authorization)

Flight Following FAA (To Close Flight Plans):
Oakland Air Center
Poc: Mr. Kurt Mcaninch
Via e-mail: 9-AWP-ZOA-MOS@FAA.GOV
Via phone: (510) 745-3331

PPR Received (DDMMMYYYY): Time:	PPR NUMBER (JULIAN DATE/SEQUENCE #): --

1	**Requester's Name and Rank**	
2	**Requester's Unit**	
3	**Requester's Phone Number**	DSN: Comm:
4	**Requester's Fax Number**	
5	**Dates and Times Requested:**	ETA: ETD:
6	**Training Areas Requested**	
	R-2513 Flight Level Requested (if altitude of 8,000and above is requested call Oakland and raise ceiling)	
	Pilot in Command	
	Number of Personnel Training	
7	**Type of Mission to be Conducted:**	

8	**Type of Aircraft:**	**# of Aircraft:**	**Call Sign:**	**Tail Number:**

9	Ordnance Involved	No	Yes	Types:
10	Non-Eye Safe Laser Designators	No	Yes	Types:

Aircraft Mounted:		Ground / Vehicle Mounted:	
11	**Coordinated flight with Range Scheduling**	DDMMMYY	Initials:

Parachute Operations:					
Jackhammer DZ	Electric Power Lines Turned Off	NA	No	Yes	Notify DPW at x2545
Schoonover DZ	Electric Power Lines Turned Off	NA	No	Yes	Notify DPW at x2545
12	**Refueling Required**	No	Yes	Notify DPW at x2545	

13	Requested Unit Notified	DDMMMYYYY	Name of Person Notified:
14	When Fixed Wing Aircraft Plan on Landing, Fax Copy of PPR to FHL Fire Dept x3245		
Time Sent:	Date:	Verified Fax Receipt With Fire Dept Rep:	
15	Range Control Rep Receiving PPR:		

Additional Remarks

FHL Form DPT 31: Aviation Briefing

BLOCK 1 - General Information	(a) Briefing Number				
	(b) Effective Date(s)				
	(c) Page		of		Pages

BLOCK 2 - Restricted Flight Areas

(a) Training Area(s)	(b) Period Covered		(c) Restriction(s)	(d) Activity
	From	To		

BLOCK 3 - Access Routes

(a) Route / Pass	(b) Open / Closed		If Closed, List Times and Hazards
Bradley	Open	Closed	
Del Venturi	Open	Closed	
Jolon	Open	Closed	
Northwest	Open	Closed	
San Antonio	Open	Closed	

BLOCK 4 - Temporary Notices

BLOCK 5 - Permanent Notices

1. FUEL AVAILABLE MONDAY - FRIDAY 0800 - 1630 ONLY. FUEL POINT CLOSED WEEKENDS AND HOLIDAYS.
2. WIRE HAZARD RECON REQUIRED BEFORE NOE/NVD FLIGHTS.
3. AIRCRAFT USING BRADLEY PASS MUST MAINTAIN 2500' MSL OR RISK FLIGHT VIOLATION COMPLAINTS BY LOCAL RESIDENTS.
4. AIRCREWS MUST UPDATE MAPS WITH ALL CURRENT HAZARDS AND NO-FLY AREAS.

BLOCK 6 - Changes to Original Briefing

BLOCK 7 - Operating Initials

TUSI ADVISORY:		MEDEVAC:		SENIOR PILOT / AVIATION UNIT CDR:	

BLOCK 8

DATE OF BRIEFING:	

FHL Facility Grid Locations

RANGE CONTROL	FE	5915	8486
9mm Pistol Range	FE	6343	8284
M16 Zero Range	FE	6331	8281
M16 Qual Range	FE	6300	8270
B9 Range	FE	6843	7906
M203 Range	FE	6794	7940
MPRC Main Tank	FE	6704	8007
MG Range	FE	6617	8066
CPQC Range	FE	6532	8121
HG Range	FE	6502	8039
Demo Pit (TA 20)	FE	5863	7723
CLFX AAR Bldg (TA 20)	FE	5806	7749
CLFX TA12B (Temp)	FE	5324	8145
Crocker Range	FE	5735	8885
MPRC AHA	FE	6754	7928
Confidence Obstacle Course	FE	6336	8270
Conditioning Obstacle Course	FE	6332	8197
Rappel Tower	FE	6321	8232
Pugil Pit	FE	6328	8179
Bayonet Assault Course	FE	6330	8179
HG Inert Assault Course	FE	6333	8176
NBC Chamber	FE	5297	9223
North Land Nav (TA 2)	FE	5325	9253
East Land Nav Beginners Course (TA 13E)	FE	6508	8576
East Land Nav Intermediate Course (TA 13E)	FE	6477	8508
South Land Nav (TA 27)	FE	6761	7033
Schoonover CCT Shed	FE	6233	8216
Black Jack 31st SRG Compound	FE	6388	8110
Miller Shower Point (Bldg T-634)	FE	6362	8110
Site 8J Bldgs	FE	5855	7952
EPW Site	FE	5788	7986
TTB Ward	FE	6630	7120
MOUT Site	FE	6542	7197
Shoot House	FE	6390	7153
Urban Assault Course (UAC)	FE	6374	7170
Palisades Rappel Site	FE	6105	7128
Trash Collection Point	FE	5950	8374
Water Point Refill	FE	5850	8552
2-Mile PT Track Start Point	FE	5852	8551
HEAT (Bldg S-243)	FE	5957	8563
RTC IMT Lane (TA 15)	FE	5933	7911
Convoy STX Lane San Mig Loop	FE	5406	8052

FHL Laser Briefing

LASER BRIEFING FOR TROOPS OCCUPYING FHL DURING LASER ACTIVITY

| During field maneuvers at FHL, there will be laser activity in training areas:

Laser light can cause damage to living tissue. When light strikes tissue, the absorbed energy produces heat causing damage. The eyes are most vulnerable to injury. Eye damage can occur from three sources:

(1) direct beam (intrabeam) viewing,
(2) viewing a specular reflected beam, or
(3) optically aided viewing.

The **direct beam** from any laser system is the most hazardous since your eye may intercept the greatest amount of laser energy. Intrabeam viewing causes damage to the retina of the unprotected eye ranging from a severe retinal injury with sight loss in one of your eyes to a barely discernible black speck in your field of vision.

A **specularly reflected beam** occurs when the laser beam is bounced off a mirror-like surface. Only certain surfaces are shiny enough to cause hazardous reflections. These include glass, chrome, and standing water but do not include rocks, wet foliage, or earth. Curved surfaces will spread the beam and a hazardous condition will exist only within a few meters.

The hazard of looking into a direct beam is greatly increased when using a pair of binoculars or other **optical aid**. The energy from the laser is collected by the optical objectives lens and focused into the eye. Users are placed closer to the laser by a factor of the magnifying power of the lens. If a user is 1000 meters from the laser, the hazard to the user's eye when looking through an eight power scope is equivalent to the unaided eye located only one eighth the distance (125 meters) from the source.

What can be done to minimize the hazards that exist?

- First, know the dates, time, and training areas where laser activity is scheduled. Major access roads will be blocked off and warning signs posted. Do not ignore the signs.
- Second, enter these areas only after clearance from Range Control and only when wearing laser protective eyewear.
- Third, do not go above feet elevation.
- Fourth, do not use optical aids (binoculars, sight, etc,) in an attempt to see the lasers.

Appendix D
Training Ammunition: Storage and Use

D-1. Purpose
The purpose of this chapter is to establish procedures for storing ammunition at field sites and for the use of specific munitions and explosives The term "ammunition" includes live and blank munitions, smoke and chemical/riot control agents, pyrotechnics, and mines and demolition explosives and devices. No High Explosive (HE) ammo unless approved by RC.

D-2. Field Ammunition Sites
Field ammunition holding sites will only be used as a last resort. Ammunition should be drawn on a day-to-day basis; however, when location and training requirements dictate that a field storage site be established, the unit has the responsibility to store ammunition in a safe and approved manner IAW DA PAM 385-64 and other pertinent regulations. If a determination to store ammunition at a field site is made, the storage site and procedures within the site are subject to formal inspection by the FHL Safety Officer and/or Quality Assurance Specialist (Ammunition Surveillance). All field ASP, AHA, FARP, etc., will be requested and approved through a FHL Training Support Request. A site plan will be included, showing type and quantity of munitions to be stored. QASAS/ASP will review site plans for explosive safety requirements. The following criteria will be used in selecting a field site:

a. Safe distance (2,000 feet) from inhabited areas and/or public highways. The safe distance is computed using hazard class and explosive weight data for type and quantity of munitions IAW Chapter 5, DA Pam 385-64. As a general rule, separation distance for hazard class 1.1, 1.3, and 1.4 is 1250 feet; for hazard class 1.2 - 2400 feet.

b. Well-drained area.

c. Close to the supported unit.

d. Close to main road network.

e. Clear of flammable vegetation.

f. Defensible with minimum personnel.

g. Field storage categories and quantity distances must be determined using Chapters 5 & 6, DA Pam 385-64. Once established, these must be used to determine the size of the location required to properly segregate ammunition into separate stacks by category (see Chapter 5, DA Pam 385-64).

h. A perimeter will be established to limit access to ammunition. An **ARMED GUARD MUST BE POSTED** IAW AR 190-11 to preclude entry of unauthorized personnel and/or unauthorized removal of ammunition. The guard will be provided an access roster of personnel authorized to enter the site. Periodic checks of the site will be made. **ARMED GUARDS ARE A UNIT RESPONSIBILITY.**

i. Matches or other flame producing devices will not be permitted within the storage site. Smoking will not be permitted within 50 feet from the perimeter of the site. Sufficient firefighting equipment for the types of ammunition stored will be on-site and readily accessible.

j. While in the field, it will be inventoried daily by a responsible noncommissioned officer. The record of these individual inspections will show DODIC, lot number, amount on hand, and time of inventory. Individuals receiving ammunition from the storage site will sign for the ammunition by DODIC, lot number, and number or amount. Inventory and issue documents will be maintained until the unit has satisfactorily turned-in all excess ammunition and residue, has accounted for all items issued from the ASP, and has cleared the training area.

k. Ammunition will be kept off the ground on dunnage, and will be covered with fire and weather resistant tarpaulins elevated approximately 18 inches above the ammunition to protect it from the elements and direct rays of the sun. Boxes will remain sealed until items are required for use.

l. The ammunition area and ammunition stacks must be placarded with the appropriate fire symbols and chemical hazard signs that will be placed at each entrance to the site. Placards placed on individual stacks will be readily visible to fire fighting personnel.

m. Adequate firefighting equipment must be at the site. All personnel must be made aware of the hazards involved in ammunition fire fighting and the proper procedures to be used.

D-3. Procedures for Transporting Explosives:

a. Ammunition will be transported and handled only under the direct supervision of qualified personnel who are thoroughly familiar with the safety regulations listed in AR 385-62, AR 385-63, AR 385-64, TM 9-1300-206, FMs of specific weapons, and local regulations and standard operating procedures.

b. All vehicles carrying explosives or other dangerous cargo will be properly inspected IAW DA PAM 385-64, FMs of specific weapons, and local regulations and standard operating procedures.

c. No personnel including the ammunition guard will be transported in cargo compartments of ammunition vehicles.

d. Civilian vehicles are not permitted in ammunition areas, nor will they be used for transporting ammunition, explosives, pyrotechnics, CS or smoke grenades.

e. If available, fixed-range sheds may be used for temporary, limited ammunition storage. Units are responsible for providing required physical security measures (armed guard, concertina wire, etc.), placards, fire extinguishers, and ensuring that the ammunition is properly segregated. Other facilities must be at the proper distance from the fixed-range sheds IAW DA PAM 385-64. Consult the FHL QASAS for details.

D-4. Ammunition Driver and Handler Certification

Ammunition Drivers and Handlers must have completed all required training prior to transporting ammunition. Information about requirements can be obtained by contacting the FHL QASAS at (831) 386-3322.

D-5. Misfires and Hang fires

The OIC is responsible for supervising the handling and disposition of misfires and hang fires. Misfires and hang fires will be treated IAW the provisions of the appropriate technical and field manuals for the weapon and ammunition involved. The nature of each malfunction must be understood to prevent injury to personnel and preclude property damage. All misfires and defective ammunition (not duds) will be repackaged in original containers, segregated from serviceable items, clearly marked defective ammunition or misfires and returned to the ammunition supply point.

a. If IAW the appropriate manual a misfire is considered immediately hazardous to personnel, training will be halted within the fragmentation distance of the system and personnel will be evacuated from this hazard area. Contact Range Control with the misfire information and follow the procedures of Para 1-21b.

b. When dud and misfire rates equal or exceed . All duds and unexploded ordinance (UXO) are to be considered extremely hazardous and will not be disturbed. The location of any dud found will be marked and the location immediately reported to Range Control by grid coordinates. They will be clearly marked by stakes no closer than three meters from the dud, and surrounding it in a triangular pattern. The stakes will be connected by some clearly distinguishable tape or other material. A guide will remain in the area until Range personnel arrive to evaluate the item.

(a). Range control will coordinate with EOD for proper disposal.

(b). Prior to the arrival of Range Control, the unit OIC will maintain a minimum safe distance of 500 meters and 100% accountability of all personnel and equipment.

D-6. Blanks, Pyrotechnics, Simulators, and Paint Marking Rounds

a. The firing of blank ammunition, pyrotechnics, and simulators in tactical training areas is a prime cause of fire. Personnel using any of the above training munitions will exercise caution to reduce the fire hazard. If a fire danger rating of High or greater IAW FD Reg 420-4 paragraph 3-10b exists, the OIC will first contact Range Control for clearance. During periods of dry weather, the use of those training munitions may be suspended due to the hazards of brush fires. Range Control will notify units when a fire hazard exists.

b. Leaders will ensure that all personnel are briefed on Blank Fire Attachments (BFA) and the safety hazards presented by improper use of the above items. They will also continuously monitor the use of the training munitions to ensure proper usage. Weapon systems for which BFA are manufactured will not be fired without the proper BFA. Blank ammunition will not be fired at personnel closer than five meters. Miles equipped systems will not be fired closer than seven meters. Simulators will not be fired closer to personnel than specified in applicable manuals and safety of use messages.

c. Trip flares, booby traps, and any other pyrotechnics or simulators not detonated during training will be removed before the unit departs the area.

d. The use of commercial firecrackers or homemade devices in lieu of standard pyrotechnic devices IS PROHIBITED.

e. Blanks, pyrotechnics and simulators will not be used within 500 meters of the reservation boundary or public roads.

f. Star clusters and flares may be disapproved or restricted when aviation night vision device training is being conducted in the same general area or when a significant fire hazard exists.

g. Aerial pyrotechnics will be cleared with Range Control prior to usage to ensure the airspace is clear.

h. Paint rounds are authorized for use in all non-cantonment training areas.

i. Due to quickly evolving equipment and standards, safety procedures for each exercise using marking rounds will be developed at the unit level using references provided by Range Control. The final training program will be approved by Range Control as part of the Range Packet.

D-7. Chemical Training Agents and Riot Control Agents, Riot Control (CS) Gas, and Smoke

a. General

(1) Pyrotechnics, smoke grenades, smoke pots, fog oil, and CS grenades are requested with the training support request and will generally be approved. Use of these items is subject to restrictions during the fire season.

(2) On 26 July 1996, California State Bill 1888 was signed into law by the Governor of California. This bill grants the military (FHL) an exemption from the Monterey Bay Unified Air Pollution Control District's prohibition on using fog oil obscurants. A copy of the variance, to include record keeping requirements that FHL must fulfill, is on file at the FHL Environmental Office.

(3) Overlays for CS grenades and smoke operations will be submitted as part of the confirming training facilities support request. Smoke and CS will not be used within 1000 meters of FHL boundaries or within 500 meters of public access roads.

(4) The OIC/NCO's will receive a mandatory safety briefing from Range Control prior to throwing or utilizing any NBC agents, smoke munitions, and offensive or defensive grenades.

(5) The OIC/NCO's will be required to review safety procedures as prescribed in the appropriate FM for the type of grenade and munitions utilized for training and the employment of stimulant chemical agents or smoke munitions.

(6) Establish and maintain positive, dual means of communication with Range Control as required IAW this regulation.

(7) Individual protective mask confidence and select Nuclear, Biological, and Chemical (NBC) familiarization training is authorized at FHL. Requests for the use of chemical agents, chemical simulant munitions (M9 SPAL), and smoke operations must be addressed on a case-by-case basis. If approved, training will be in accordance with this regulation and all applicable regulations and policies regarding chemical agents and smoke.

(8) Users of these facilities will follow the policies and procedures as established in Chapter 3 of this regulation and AR/DA PAM 385-63.

(9) All personnel handling or throwing non-casualty producing (chemical or smoke) hand grenades who are within the danger zone area (25 meters) will wear protective mask when employing NBC agents.

b. Chemical Agent Restrictions

(1) The use of lethal or incapacitating chemical agents in training is prohibited, except when authorized in writing by the Department of the Army.

(2) Release of riot control agents is prohibited near any live ammunition firing range or firing point, and the main garrison cantonment area.

(3) Employment of M203, 40mm chemical grenade agents, hand thrown chemical fragmentation grenade agents, or firing projectiles or dropping bombs containing chemical agents or materials is not authorized.

(4) Simulant (chemical and smoke producing) munitions used in training exercises are required to be employed in such a way that they minimize the possibility of injury to personnel and damage to property.

(5) Using units are required to obtain material safety data for simulant munitions whenever possible and coordinate with FHL Range Control prior to the employment of any chemical simulant munitions.

(6) Chemical agents, materials, and hand grenades, when carried or transported in military aircraft, will be IAW AR 95-1 and CFR-49.

(7) All chemical simulant munitions are broadly considered hazardous materials under current law and regulations and must be handled and used accordingly. The relative degree of human health hazard and environmental effects is dependent upon the type and size of simulant used.

c. Riot Control Agents, CS (orthochlorobenzalmalononitrile)

(1) The NBC Chamber in TA 2 is available for controlled usage of CS capsules release. The CS chamber will be used in training only under the supervision of an NBC officer or an NCO who has received formal training in the characteristics, capabilities, and training applications of these agents.

(2) Use of chemical agents must be arranged and coordinated between the unit and the Installation prior to use in any other area.

(3) Burning type CS grenades will not be thrown closer than 10 meters to personnel.

(4) Bursting type CS grenades (M25) will not be thrown closer than 25 meters to unprotected personnel.

(5) See AR/DA PAM 385-63 and FM 3-11 for protection from and treatment of exposure to CS agents.

d. Smoke Restrictions. The following restrictions for the employment of smoke stimulant: munitions will be observed.

(1) Maximum of Three HC smoke pot or smoke producing generators are authorized for employment at any given time.

(2) Smoke grenades and smoke pots will only be used in open areas that are free of brush, dry grass, etc. Extreme care must be taken to prevent fires from starting. This requires the OIC/NCOIC to ensure that wind conditions are not such that sparks may ignite combustible material outside of the cleared area and that sufficient water (e.g. 5 gallon water cans) is available to dose a fire if started.

(3) The release of HC or nontoxic oil based smoke is prohibited near any live ammunition firing range or firing point, the main garrison heliport, or within 1000 meters of the Installation boundaries.

(4) HC smoke pots and smoke grenades will not be used in any building or structure. Or near congested areas and roadways.

(5) When HC smoke pots are fired manually, the operator will ignite and move to a minimum standoff distance of 30 meters or more.

(6) Employment of FS (sulfur trioxide) or FM (titanium tetrachloride) screening agent smoke is not authorized for use at FHL.

e. Operational and Safety Procedures

(1) Smoke producing (HC) munitions used in training exercises are required to be employed in such a way that they minimize the possibility of injury to personnel and damage to property.

(2) HC smoke will be used in training only under the procedures described above and under the direct supervision of qualified NBC personnel.

(3) M8 HC smoke grenades will be employed in the same manner as HC smoke pots. Minimum standoff distance of 10 meters is required.

(4) Personnel remaining in any concentration of HC smoke will be required to be in protective masks.

D-8. Mines, Hand Grenades and Demolitions

a. Mines, Fuzes, Firing Devices, Trip Flares, Simulators, Grenades, and Explosive Charges:

(1) General

i. This section prescribes the general procedures for handling and detonating explosives, mines, firing devices, trip flares, and simulators used by troops in training. It does not include projectiles, rockets, bombs, fuzes, or firing devices covered in other paragraphs of this regulation unless otherwise stated. It also serves as a general guide to be used by EOD personnel for disposal of unserviceable ammunition.

ii. Users of these facilities will follow the policies and procedures as established in this regulation.

(2) Training Unit Commander Information

i. Demolition training permits highly realistic training utilizing mines, firing devices, and explosive charges and involves specific personnel safety requirements. This section applies only to FHL and defines safety requirements to support live demolition training exercises.

ii. Commanders whose units participate in demolition live fire exercises as outlined in this regulation are responsible for the safety of their troops and government property. Specifically, they will:

a. Comply with this regulation and AR/DA PAM 385-series.

b. Train subordinate commanders, unit leaders, and safety and controller personnel to familiarize them with these regulation and safety procedures before conducting demolition training.

c. Develop, coordinate, and submit detailed planning utilizing DA Form 2203-R, Demolition Reconnaissance Record, or a concept plan to the IRO.

d. Appoint an OIC/NCOIC IAW this regulation.

e. Provide for safety checks of each firing device and system before firing live explosive charges.

f. Ensure all personnel who will train on live demolition are, as a minimum, familiar with the types of firing devices and explosives to be fired.

g. Provide a detailed risk assessment.

(3) The following precautions apply to high explosive or service, practice, inert mines, related fuzes, firing devices, trip flares, and simulators.

i. Practice and inert mines used in training will be color-coded IAW MIL STD-709A and TM 9-1375-213-12, and have proper identification marking stenciled on them.

ii. At no time will service, practice, and inert mines, and fuzes be mixed and/or stored together.

(4) Anti-personnel/tank mines.

i. Antipersonnel mines. The M18 Claymore is the only antipersonnel mine authorized for use. All practice and inert mines are authorized for use and will be employed IAW AR 385-65.

ii. Antitank mines. Only practice and inert antitank mines and their fuzes are authorized for use and will be employed IAW AR 385-65.

(5) Firing Devices.

i. Firing devices and fuzes, either with or without the standard bases, will not be directed or pointed at personnel.

ii. Standard bases containing unfired percussion caps will be kept separated from firing devices and fuzes until the device or fuze is ready to be installed in the mine or booby-trap.

iii. Standard bases containing unfired percussion caps, firing devices and fuzes will not be carried in pockets of personnel.

iv. Safety pins on firing devices and fuzes should be checked for ease of movement before attaching the standard base. The safety pins for locking and positive safety should be easily removed.

v. Camouflage and arming of devices, mines, and fuzes will be completed prior to removing the positive safety from the fuze or firing device.

(6) Simulators

i. Procedures for safe use of simulator items are contained in TM 9-1375-213-12. All personnel firing simulators will know all the safety requirements in this TM.

ii. No attempts will be made to disarm or disassemble simulators under any conditions.

(7) Mine-Clearing Line Charge (MICLIC) kit (M58A4)

i. The MICLIC is a rocket-propelled explosive line charge used to reduce minefields and is designed to be towed and positioned approximately 50 meters from the leading edge of the threat minefield. The charge is then detonated to clear a path.

ii. Detonation is done by means of a blasting machine and firing control switch that are used to fire the rocket and detonate the linear charge after the linear charge is resting across the minefield.

iii. Both the live and inert MICLIC can be used at FHL. This consists of the following components: Motor, rocket, and 5 inch DODIC J143-Line Charge.

iv. The MICLIC will not be towed behind the M1 tank, due to high exhaust temperatures.

(8) Claymore Antipersonnel Mine (M18A1):

i. The surface danger area consists of a 180-degree fan with a radius of 250 meters centered in the direction of aim.

ii. The back blast and secondary missiles danger area is 16 meters to the sides and rear of the mine.

iii. The minimum safe operating distance from the mine is 16 meters. The operator and all friendly troops within 100 meters of the mine must wear helmets and take cover to prevent being injured by secondary missiles such as sticks, stones, and other surface debris.

iv. Troops installing or disarming the Claymore will be closely supervised by the unit OIC.

v. The soldier installing or disarming the mine will carry the electrical firing devices on his person.

vi. When an electrical firing system is being armed or disarmed, the electrical firing device will be disconnected from the firing wire.

vii. The legs of the mine will be emplaced to preclude the possibility of the mine being blown backwards at the time of detonation.

viii. The firer will investigate and correct any electrical misfire in a purely electrical system IAW the appropriate technical manual.

ix. Claymores will not be set up when electrical storms are forecasted or in progress.

x. When temporarily storing demolitions in field sites, no stack will exceed 500 pounds of explosives, and the distance between stacks will not be less than 45 meters. Demolition materials, dynamite, black powder, and detonators will each be stored and transported separately. Inert components of practice demolitions will be placed in separate stacks designated for the type of material.

(9) Firing:

i. All electrically detonated demolition training will be suspended during or upon the approach of an electrical (thunder) storm.

ii. Radar and radio transmitters will be operated IAW recommended distances between transmitter and demolitions as shown in AR 385-63, Chapter 18, paragraphs 6 and 7.

iii. Demolition training will not be conducted closer than 150 meters to electrical power lines.

iv. Possible sources of static electricity will be eliminated from the area when electrical firing is planned.

v. Non-electrical firing systems will not be disarmed. THEY WILL BE FIRED.

(10) Placement of Charges:

i. For the purpose of training, non-electric caps and fuzes will be fired only above the ground. This facilitates the investigation of misfires.

ii. Charges placed against wood, steel, concrete, or other solid materials will be placed on the side nearest observers so fragments are propelled away from them.

iii. Actual insertion of the blasting cap in all charges should be done by not more than two individuals under supervision of the unit leader, and not until the remainder of the unit has withdrawn to a safe position.

iv. The responsibility for preparation, placement, or firing of charges must be divided. The OIC of firing is responsible for supervising all phases of the demolition mission.

D-9. Fragmentation Hand Grenades

a. All training with fragmentation grenades will be conducted IAW AR 385-63, DA Pam 385-63, and FM 23-30.

b. Fragmentation grenades will be used only at the grenade range upon approval by FHL Range Control, or in other areas approved by the FHL Officer or designated representative. FHL has an established fragmentation grenade range located on the west side of the MPRC in Training Area 22.

c. All personnel within a radius of 250 meters will wear helmets and hearing protection at all times.

d. The impact area will be free of obstacles.

e. A side-to-side distance of five meters will be maintained between each soldier.

f. Designated throwing positions must protect the throwers from fragments and provide cover for all participants. These positions can be natural terrain or constructed barriers.

g. Only one hand grenade will be thrown at a time.

h. Once the safety pin has been pulled from a grenade, the grenade must be thrown. No attempt will be made to replace the pin or tape down the handle. Jungle clips will be removed from the grenades.

i. When a DUD occurs, the OIC will:

(1) Place the range in a cease-fire.

(2) Report the DUD to Range Control providing an 8-digit grid coordinate.

(3) Secure the site with road guards or barriers.

(4) Remain at a Cease Fire until the DUD has been destroyed. Continued use of hand grenades after a DUD occurs may result in the DUD becoming airborne and detonating, and is absolutely prohibited until the DUD has been cleared by qualified EOD personnel.

(5) No person other than qualified EOD will enter the impact area at any time.

(6) EOD will notify Range Control when the DUD has been destroyed. The training unit OIC may then request permission to resume grenade training.

(7) Units will not maneuver across a firing area where hand grenades have been thrown until surface clearing operations have been completed.

D-10. Demolitions

The largest charge authorized to be detonated for training purposes is 320 pounds, and the detonation must be at least two kilometers within the boundaries of FHL. Use of the live MICLIC must be specifically approved in advance by the Officer. The detonation charge of this round is 1,750 pounds.

a. All demolition firing will be conducted IAW the requirements of AR 385-63, Chapter 18; DA Pam 385-63, TM 9-300-206; TM 9-1375-200; FM 5-25; and FM 25-7. Claymores, plastic explosives, nuclear simulators, demolition shaped charges, Bangalore torpedoes and practice bombs will be detonated in either Stony Valley or Gabilan High Explosive Target Areas, unless otherwise expressly approved by FHL Range Control.

b. The OIC must be in the rank of E-7 or above. The OIC must be present to personally supervise the training and will ensure that all connections are inspected by qualified personnel before firing, and that the area is inspected after firing to determine if all charges have been detonated. The OIC will supervise the neutralization of all misfires.

c. A range SDZ overlay will be submitted as part of the confirming training site support request and will include the following:

(1) Eight-digit grid coordinate for location of demolition charge.

(2) Missile hazard area (Explosive charge). The SDZ will be constructed IAW AR 385-63 and contain the following information:

i. Type of device
ii. Number of pounds of explosive charge
iii. Date/time group of detonation
iv. Unit
v. OIC and RSO

d. Information concerning the firing of shaped charges, Bangalore torpedoes, mine clearing snakes, and blast-driven earth rods is contained in AR 385-63, Chapter 18, paragraph 9. The only differences concerning the requirements for the overlay as described above are the shape and dimensions of the missile hazard area.

e. Information concerning the firing of cratering charges is found in AR 385-63, Chapter 18, paragraph 10, and DA Pam 385-63.

Appendix E
Safety and Risk Management

SAFETY

E-1. Purpose

To establish safety guidelines for units and personnel utilizing FHL training facilities.

E-2. References

Required and related publications used in conjunction with administering FHL Regulation 350-2 are listed in Appendix A.

E-3. Definitions

a. Unit Safety Officer/NCO: A person, on orders, assigned safety duties for a unit.

b. Supporting Safety Office: The Safety Office at the home Installation of the training unit.

c. Safety Representative: The INSTALLATION Safety Officer.

d. Class A Accident: An accident in which the resulting total cost of property damage and personnel injuries/occupational illness is $1,000,000 or greater; or an injury/occupational illness which results in a fatality or permanent total disability.

e. Class B Accident: An accident in which the resulting total cost or property damage and personnel injuries/occupational illness is $200,000 or more, but less than $1,000,000; or an injury/occupational illness which results in permanent partial disability or hospitalization of five or more personnel in a single occurrence.

f. Class C Accident: An accident in which the resulting cost of property damage is $10,000 or more, but less than $200,000; or an injury/occupational illness that results in a lost workday case.

g. Class D Accident: An accident in which the resulting cost of property damage is less than $10,000, an injury/occupational illness results in a lost workday/lost time case with one or more days of restricted work activity, or a nonfatal case without a lost workday or medical treatment.

h. Recordable Accident: Class A through C accidents are recordable and require completion of DA Form 285.

i. Reportable Accident: Class D accidents are reportable to the home station supporting Safety Office in accordance with internal reporting procedures. For more information, refer to the responsibilities listed in Chapter 2, section 18.

E-4. Vehicle Safety and Operations

All vehicles will utilize existing roads and trails except when the training exercise requires cross-country operations, i.e., attacks, assaults, preparation of vehicle defensive positions.

a. Vehicles will be inspected prior to dispatch. Special emphasis will be placed on proper functioning of such safety-related items as horns, mirrors, lights, reflectors, brakes, fire extinguishers, steering mechanisms, safety chains/straps, windshield wipers and windshield washer reservoir, exhaust systems, tires, signal lights, trailer hitches, and emergency warning devices.

b. Only properly licensed personnel will operate vehicles. Personnel who appear to be fatigued or physically, mentally, or emotionally impaired will not operate vehicles.

c. Adequate-seating arrangements will be provided for all occupants and all occupants will use available restraint systems. Personnel will be wholly contained within the vehicle. Personnel will not be transported in vehicle trailers or vehicle shelters.

d. Personnel riding in the cargo compartments of vehicles will wear the Kevlar helmet.

e. Personnel will not sleep in or on vehicles unless all power, including heaters, is off. Under no circumstance will personnel sleep under vehicles. Drivers will verify that personnel are not sleeping under or near vehicles prior to movement.

f. Ground guides will be used in bivouac, tactical assembly areas, assembly areas, maintenance areas, and motor pools at all times. When backing vehicles, multiple ground guides may be necessary due to the vehicle type and size.

g. All FM antennas will be tied down and capped when vehicles are operated in the cantonment area.

E-5. Wheeled Vehicle Operations

a. Highway warning devices will be used when vehicles are stopped or disabled on public highways.

b. Vehicles will not travel under blackout conditions until past the established light line. Vehicles will not travel in service drive past the light line unless emergency conditions exist.

c. Parking brakes on cargo vehicles are often inadequate or inoperative. Therefore, vehicles will not be parked on any incline without adequate chocks. Vehicles will not be parked uphill of bivouac or field mess sites.

d. Personnel will not be transported on top of cargo unless the loads are adequately secured and personnel have sufficient room within the body of the vehicle.

e. Safety straps must be secured and tailgates up when transporting troops.

f. Personnel will not be transported in bucket loaders on or in the bed of a dump truck.

g. Vehicles will carry only as many passengers in the cab as the restraint systems allow. When there are no restraint systems, vehicles equipped with floor-mounted manual shift/transmission mechanisms will carry only the driver and one passenger in the cab.

E-6. Tracked Vehicle Operations

a. Tracked vehicles will cross paved roads only at the following designated crossings:

FE 5975 8249	FE 5522 8129	FE 5796 7976
FE 5957 8557	FE 5465 8097	FE 6452 8190
FE 5492 8663	FE 5433 8100	FE 7285 7671
FE 5576 8189	FE 5324 8139	FE 7231 7440
FE 5562 8176	FE 5109 8220	

b. Vehicles will not be operated without the use of a ground guide when the intercommunications systems are inoperative.

c. Vehicle commanders will lock down open hatches with locking pin or cargo strap. Hatch covers will be tested by shaking to ensure they are locked in position.

d. During live-fire training, the rear of tracked vehicles will be marked to prevent mistaken engagement by other live-fire participants. Vehicles shall be on line during all firing operations.

e. Occupants of tracked vehicles are required to wear protective headgear.

f. Equipment stowed in vehicles will be tied down or otherwise secured to prevent loose objects becoming missiles in case of an accident.

E-7. Helicopter Safety

a. Follow the instructions of aircraft crewmembers.

b. Ensure that the pilots are aware of all action around the aircraft.

c. Ensure that all weapons are unloaded and cleared prior to boarding the aircraft and the muzzle is kept pointed down while in the aircraft.

d. Use safety belts and wear hearing protection at all times.
e. Do not jump from helicopters or throw objects from helicopters.
f. Keep low when approaching a helicopter and NEVER approach from the rear unless directed by aircraft crewmembers.
g. Strap down long antennas and secure headgear prior to approaching a helicopter.
h. Do not drive vehicles under rotor blades while they are turning.
i. DO NOT fire or throw CS, flares, star clusters, or smoke grenades at or from helicopters.

E-8. Heaters

a. Portable radiant-type space heaters must be operated in accordance with TM 10-4500-200-13 and the following:
(1) Tent stovepipe opening flaps must be securely tied back with all available tie tapes.
(2) A sufficient number of stovepipe sections (usually six) must be erected so that the top section is well above the highest point of the tent. Stovepipe sections must be straight up and not allowed to come into contact with any part of the tent.
(3) The area surrounding the heater must be cleared of combustibles (including dry grass and weeds) for a distance of four feet.
(4) If placed inside tents with wood or canvas floors, heaters must be placed in a sandbox containing four inches of sand or dirt.
(5) Adequate ventilation must be provided when space heaters are operated.
(6) A draft diverter must be installed on the top stove section and guy ropes attached and secured.
(7) The fuel can for the heaters must be located outside the tent and as far from the tent as the fuel hose allows. Ensure that the fuel line has a drip loop and that it is used.
(8) Fuel cans, lines, and carburetors must be checked daily for leaks, particularly after changing fuel cans. No heater will be operated when leaks are present in fire, such as a fire extinguisher or sand, must be present.
(9) Tent heaters must never be operated at full capacity, even in extreme cold. Overheating of the stovepipe sections may ignite the tent.
(10) When tent heaters are operated, fireguards must be posted.
(11) The heater and heater vent pipes will be disassembled and cleaned after every two days of operation.
b. Immersion heaters will be operated in accordance with TM 5-4500-200-13 and the following:
(1) Personnel lighting immersion heaters must be properly licensed and use care not to expose their face to the burner chamber while lighting.
(2) The vent cap must be closed when filling the fuel tank.
(3) Fuel tanks should not be installed on the heater until after the heater is attached to the corrugated (trash) can.
(4) If immersion heaters are used inside buildings or tents, exhaust fumes must be piped outside.
c. M-2 Burners:
(1) Operators must be properly trained and qualified to operate the M-2.
(2) M-2 burners must be lighted outside the tent.
(3) If wind conditions hamper lighting outside, a windbreak should be constructed.
(4) Two persons are required to carry the M-2 inside the tent after lighting.

E-9. Carbon Monoxide

Carbon monoxide is a colorless, odorless, and tasteless gas produced by burning a gas, liquid, or solid fuel. The most common source of carbon monoxide is the exhaust from gasoline-powered engines. Symptoms of carbon monoxide poisoning include headache, dizziness, drowsiness, and tightness across the forehead. When sufficient quantities are inhaled, death results from asphyxiation. To reduce the dangers associated with carbon monoxide poisoning:
a. Personnel will not sleep in vehicles with heaters running.
b. Adequate ventilation will be provided in tents, command posts, and other enclosures where combustion takes place.

E-10. Handling of Oil and Petroleum Products

a. Smoking within 50 feet of vehicles being fueled is prohibited.
b. Engines will be shut off, and the master switch will be in the OFF position during refueling.
c. When refueling from a fuel truck, all vehicles will be properly bonded to each other and grounded.
d. Heat causes rapid vaporization, and blowing dust can cause static charge. Use EXTREME CAUTION under these conditions.
e. Vehicle operators and fuel handlers will ensure that correct fuel is placed in vehicles.
f. Fuel handlers will wear proper personal protective equipment and have a portable fire extinguisher readily available.
g. Operators will have sufficient spill response equipment on hand when refueling.
h. Refueling tankers/bladders in the field will have a containment berm or other catchments system in place when refueling.

E-11. Antennas

a. Antenna structures will be located away from overhead power lines at a distance of no less than twice the height of the antenna. Before the erection of any type of antenna (structure, vehicular, or shelter) a thorough inspection will be made of the immediate overhead area to prevent accidental contact with power lines.

b. During electrical storms, personnel will turn off electrical equipment and move clear of antennas.

E-12. Grounding

a. Portable electric power tools must be grounded (ground prong on plug).

b. All radio/electronic equipment must be grounded (ground prong on plug).

c. Fuel trucks must be grounded.

d. Signal shelters should not be located so close together that a person can touch both shelters at the same time. If operations call for two or more shelters to be co-located, grounding procedures must be used. Vehicles can be bonded together by using a cable or strap.

e. Signal shelters (vehicle and ground) must be grounded with at least a five-foot grounding rod. Grounding rods must be all the way into the ground and bolted to a shelter with tight-fitting clamps and strip/cable. During extra dry conditions, a good ground may not be possible without adding water to the area around the grounding stake. All communications equipment inside shelters must be bonded to the shelter.

f. Generators must be grounded using the procedures described in paragraph e, above.

E-13. Use of Field Communications Wire

a. Wire will be laid on the ground and buried when crossing unimproved roads.

b. Wire will not be placed in a designated helicopter landing area unless buried.

c. Wire will not be strung in the air across valleys, passes, or other areas that helicopters may transit Nap-of-the-Earth (NOE). If wires have to cross these areas, they will be staked on the ground or buried.

d. Wire will not be laid across a clearing that is large enough for a helicopter to land on.

e. Wire will not be strung on any electrical distribution poles.

f. All wire will be policed after the training exercise is completed to eliminate a safety hazard to other soldiers, wildlife and vehicles.

E-14. Hearing Conservation

a. Army regulations require the use of hearing protection devices when noise levels reach or exceed 85 decibels (dB).

b. Equipment that exceeds this criterion includes, but is not limited to, the following:

(1) Aircraft
(2) Electrical power tools
(3) Tracked vehicles
(4) Multi-fuel vehicles
(5) Rough terrain forklifts
(6) Small arms/machine guns
(7) Vulcan air defense cannons
(8) Mortars
(9) Howitzers and cannons (to include all breech-loading and automatic weapons)
(10) Simulators

c. Commanders will provide hearing protection for all personnel and enforce its use.

E-15. Animal and Insect Hazards

a. Wildlife is abundant and varied, with most activity taking place at night. Most animals are shy and will attack only if cornered. Soldiers must **leave the wildlife alone. DO NOT FEED ANY ANIMALS.**

b. Personnel having contact with the following animals run the risk of contracting rabies, plague, or other diseases:

(1) RABIES: Skunks, bats, raccoons, foxes, coyotes, bobcats, squirrels. Anyone bitten by such an animal should carefully cleanse the wound, seek medical help immediately, and, if possible, obtain the live animal for examination by qualified medical personnel.

(2) PLAGUE: Skunks, bats, raccoons, foxes, coyotes, bobcats, squirrels. Fleas found on these host animals transmit the plague. Persons coming in contact or close proximity to these hosts are subject to fleas. Plague symptoms usually develop two to six days after being bitten by an infected fDES but may take a few days longer in immunized individuals. Symptoms include an infected fleabite, fever, chills, hemorrhages under the skin, general muscle aching, headaches, diarrhea/vomiting, and swollen lymph glands (usually in the groin). Personnel who become ill within two weeks after being exposed to fleas or handling wildlife should inform their physician of their recent possible exposure to plague. If dead ground squirrels, other than "road kill" are noticed, report their location to Range Control. Actions to prevent plague include:

a. Keep plague immunizations current.

b. Avoid unnecessary contact with all animals, especially ground squirrels. Minimize sleeping in ground squirrel-infested areas. If bivouacs must be in such an area, site selection should be as far away from rodent burrows as possible.

(3) LYME DISEASE: Deer ticks. Symptoms include a ring-shaped rash, flu-like symptoms and arthritis. Later the disease affects joints, heart, and nervous system. Personnel who exhibit these symptoms must seek medical care as soon as possible.

(4) ROCKY MOUNTAIN SPOTTED FEVER: Dog ticks. Symptoms include a spotted rash, high fever, chills and severe headache. Personnel who exhibit these symptoms must seek medical care as soon as possible. If possible, remove the tick(s) immediately with fine-tipped tweezers by grasping the tick(s) as close to the skin as possible and gently pulling straight out. Do not squeeze the tick's body as this may inject fluids. Wash the bite area and apply antiseptic. Medical personnel should remove ticks that have dug into the skin.

(5) HANTAVIRUS: Hantavirus is an airborne disease spread by inhaling dust from areas contaminated by mouse droppings. The fatality rate for humans infected by the virus is approximately 50 percent.

(6) RATTLESNAKES. Rattlesnakes are common on FHL. To prevent snake bites:

a. Walk carefully, watch your step, and look before you sit or place your hands, especially near rocks, woodpiles, and shady areas.

b. Do not tease or pick up a snake. Even bites of nonpoisonous snakes may cause serious infection requiring medical treatment.

c. If a rattlesnake is found in your bivouac site, notify range control for removal. Otherwise, leave it alone.

(7) Safety Precautions

a. Use insect repellent around tops of boots, waistband, and fly. Keep trousers bloused inside boots.

b. Conduct periodic checks for ticks/fleas.

E-16. Risk Management

a. Definition. Risk management is the Army's principal risk-reduction process to protect the force. The goal is to make risk management a routine part of planning and executing operational missions. Risk management is the application of systematic thinking to the problem of making military operations safer and more effective. The focal point of risk management is mission accomplishment while minimizing the effects of hazards that cause accidental loss of lives and equipment. The following tables are available to assist training units in developing their risk Management:

(1) Risk Assessment Matrix (Table E-1).

(2) Risk Management Integrated Into Troop Leading Procedures and Command Estimates (Table E-2).

(3) Integration of Risk Management into the Decision Making Process (Table E-3).

b. Applicability. Risk management applies across the spectrum of Army operations, processes, and activities, including force development, force sustainment, force projection, and individual decision-making. It supports and encourages initiative, allowing flexibility, adaptability, and eagerness to act. Risk management applies in all situations and environments, to include:

(1) Development (force design, manpower allocation, training developments, combat developments, battle labs).

(2) Fielding (materiel developments, personnel assignments, logistics, training, base operations).

(3) Employing the force (force protection, antiterrorism, deployment, sustainment, operations, and redeployment).

c. Successful preservation of combat assets requires a cultural change. Each organization must be allowed to determine its own decision levels. The question is not with the comfort of the decision but with the professional competence and knowledge base at the decision level. Commanders need to allow risk decision to be made at the proper decision levels. Risk decisions must be pushed as far down as possible and decisions back-briefed. The object is to encourage initiative and communication. When managing risk, leaders and individuals are empowered with the responsibility for risk management decisions at the most appropriate level. This includes areas outside of their immediate responsibility to identify and act on hazards to life, limb, equipment, and mission.

d. Risk management does not:

(1) Eliminate risk altogether,

(2) Sanction or justify violating the law,

(3) Require a GO/NO-GO decision,

(4) Eliminate the necessity for standards.

e. The benefits of risk management include:

(1) Conservation of resources (combat multipliers),

(2) Improved combat effectiveness,

(3) Enhanced mission accomplishment,

(4) Enhanced training realism.

f. Risk management will:

(1) Conserve resources,

(2) Improve combat effectiveness,

(3) Enhance mission accomplishment,

(4) Enhance training realism.

g. There will always be residual risk after completion of the risk assessment process. The goal is to ensure that any residual risk is not at a higher level than the original risk at the beginning of the process.

E-17. The Risk Management Process

The risk management process consists of the following five steps:

A. Step One: Identify Hazards. Identify hazards to the force. Consider all aspects of current and future situations, environment, and known historical problem areas. "Hazard" is defined as any real or potential condition that can cause injury or death of personnel, loss or damage to equipment, and mission degradation. The objective of this step is to identify those hazards likely to result in a negative impact on the mission.

(1) Sources of Hazards:

a. Mission - Desired output of the system with some mishaps and other negative byproducts.
b. Man - Selection, performance, personal factors.
c. Material - Design, maintenance, logistics, technical data.
d. Environment - Climate, operational, hygiene.
e. Management - Standards, procedures, controls.

(2) Human Error Factors:

a. Individual Failure - Soldier knows and is trained to standard but elects not to follow the standard (self-discipline).
b. Leader Failure - Leader does not enforce known standard, thereby establishing a new, and lower, standard.
c. Training Failure - Soldier not trained to known standard (insufficient, incorrect, or no training on task.
d. Standards Failure - Standards or procedures not clear or practical, or do not exist.
e. Support Failure - Equipment/material improperly designed/not provided.

(3) Detection Resources and Techniques:

a. "What if . . . ."
b. Scenario thinking
c. Experience/historical data
d. Operations analysis
e. Primary hazard list
f. METT-T

(4) METT-T Considerations:

a. Level of activity (OPTEMPO).
b. Dangers of equipment used.
c. Weather.
d. Threat.
e. Personnel/Organization proficiency.
f. Environmental.
g. Level of planning.
h. Logistics support.
i. Complexity of mission/movement.
j. Condition of equipment.
k. Personnel health/welfare.
l. Hazardous material.
m. Protective equipment.
n. Frequency.

(5) Contributing Factors:

a. Hard to predict operational environment.
b. Fast-paced OPTEMPO (Changes).
c. High PERSTEMPO (Personnel turnover changes).
d. Human performance (Leader/soldier error).
e. Training failures/not performing to standard.
f. Environmental factors (Weather/terrain).
g. Equipment status and failures.
h. Support failures.

B. Step Two: Assess Hazards. Assess hazards to determine risks. Assess the impact of each hazard in terms of potential loss and cost, based on probability and severity.

(1) Risk Definition. Chance of hazard or bad consequence, coupled with the probability of exposure to chance of injury or loss.

(2) Components of Risk:

a. Severity - Consequence if the event occurs.
b. Probability - How likely an event is to occur.

c. Exposure - Expressed in terms of Time, Proximity, Volume, and Repetition.

(3) Risk Severity:

a. Catastrophic. Death or permanent total disability, system loss, major property damage.

b. Critical. Permanent partial disability, temporary total disability in excess of 3 months, major system damage, significant property damage.

c. Moderate, Minor injury, lost workday accident, compensable injury or illness, minor system damage, minor property damage.

d. Negligible. First aid or minor supportive medical treatment, minor system impairment.

(4) Probability:

a. Frequent

b. Likely

c. Occasional

d. Seldom

e. Unlikely

C. Step Three: Develop Controls and Make Risk Decisions. Develop control measures that eliminate the hazard or reduce its risk. As control measures are developed, risks are re-evaluated until all risks are reduced to a level where benefits outweigh potential costs.

(1) Risk Control Options/Considerations:

a. Establish Standards/Policies

b. Engineering

c. Education

d. Enforcement

e. Realism

f. Time

g. Resources

(2) The decision to accept, or not accept, the risk(s) associated with an action are made by the commander, leader, or the individual responsible for performing that action.

(3) Risk Decisions:

a. Benefits outweigh the cost.

b. Based on residual risk. Residual risk is defined as the level of risk remaining after controls have been identified and selected.

c. Made at the appropriate level.

(4) Decision Options:

a. Accept risk (benefits outweigh cost)

b. Modify risk with control measures

c. Require more information

d. Reject risk (unnecessary risk)

e. Elevate to higher levels

D. Step Four: Implement Controls. Put controls in place that eliminate the hazards or reduce their risks. Implement Controls - Where/How:

(1) Standing Operating Procedures (SOP).

(2) OPORDS.

(3) IPRs.

(4) Briefings.

(5) Training.

(6) Rehearsals.

(7) New equipment/technology.

E. Step Five: Supervise and Evaluate. Perform to, and enforce standards and controls. Evaluate the effectiveness of controls and adjust/update as necessary.

(1) Ensure controls are implemented and accomplished to standard.

(2) Supervise/evaluate effectiveness (outcomes) of controls and decisions.

a. Feedback

b. AARs

c. Lessons Learned

d. SOP Changes

(3) Re-evaluate controls periodically.

(4) If controls do not work, determine the problem and derive a better solution.

Table E-1: Risk Assessment Matrix

E – Extremely High Risk H – High Risk M – Moderate Risk L – Low Risk		PROBABILITY				
		Frequent	Likely	Occasional	Seldom	Unlikely
Severity	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
	Moderate	H	M	M	L	L
	Negligible	M	L	L	L	L

Table E-2: Risk Management Integrated Into Troop Leading Procedures and Command Estimates

RISK MANAGEMENT	TLP & COMMAND ESTIMATES
Step 1: Identify Hazards	1. Receive the mission (Initial METT-T analysis) 2. Issue the warning order 3. Make a tentative plan A. Estimates of the Situation 1. Detailed Mission Analysis 2. Develop Situation and COA
Step 2: Assess Hazards Step 3: Make Decisions and Develop Controls	3. Analyze COAs (War-game) 4. Compare COAs 5. Decision B. Expanded Selected COAs Into Tentative Plan 4. Initiate Movement 5. Reconnoiter
Step 4: Implement Controls	6. Complete the Plan 7. Issue the Order
Step 5: Supervise and Enforce Controls	8. Supervise and Refine the Plan

Table E-3: Integration of Risk Management into the Decision Making Process

MISSION RISK MANAGEMENT	DECISION MAKING PROCESS
1. Identify Hazards – Gather and analyze METT-T facts to identify hazards most likely to result in loss of combat power.	1. Receive mission 2. Gather and consider information 3. Complete mission analysis, restate mission, and issue planning guidance
2. Assess Hazards A. Complete risk assessment for each course of action (COA) B. Enter risk level of each COA as a decision criteria	4. Complete staff estimates A. Develop/analyze/compare COAs (war-game) B. Recommend COA 5. Complete commander's estimate A. Analysis of COAs (war-game)
3. Identify controls and make risk decisions A. Identify and select controls for hazards most likely to result in loss of combat power B. Make risk decision for selected COA - accept residual risk level or evaluate decision	B. Decision (select COA) C. Concept of operation (Make risk decision and select controls)
4. Implement controls - Communicate and implement controls - Integrate into paragraphs and graphics of OPORD	6. Prepare Plans/Orders 7. Approve Plans/Orders 8. Issue Plans/Orders
5. Supervise - Monitor and enforce controls - Revise as necessary	9. Supervise

Appendix F
Camp Roberts

Camp Roberts Training Support Center

Camp Roberts is a California Army National Guard training site located approximately 20 miles south of FHL. This Installation has a variety of ranges and a Training Support Center (TSC) that can provide training aids, simulation devices and visual information products and services.

Call the Directorate of Plans, Training, Mobilization, and Security for more information.

DPTMS Operations	(805) 238-8205/8206
Range Control	(805) 238-8503
Range Operations	(805) 238-8269
Training Support Center	(805) 238-8812

http://www.calguard.ca.gov/CpRbts/Pages/DPTMS.aspx

Annex A
Environmental Procedures

A-1. Archeological Sites Inventory and Historic Resources Preservation

a. Historic Preservation

(1) The FHL Integrated Cultural Resources Management Plan (ICRMP) is the U.S. Army's plan for complying with its historic preservation obligations set forth in Section 106 and 110 of the National Historic Preservation Act (NHPA) of 1966, as amended.

(2) Federal laws and regulations have been promulgated to protect the nation's historic resources and Native American cultural values. Relevant laws pertaining to historic preservation at FHL include:

a. Antiquities Act of 1906
b. The National Historic Sites Act (NHSA) of 1935
c. The National Historic Preservation Act (NHPA) of 1966
d. The National Environmental Policy Act (NEPA) of 1969
e. The Historical and Archeological Data Preservation Act (HADPA) of 1974
f. The Archeological Resources Protection Act (ARPA) of 1979
g. The American Indian Religious Freedom Act (AIRFA) of 1978
h. The Native American Graves Protection and Repatriation Act (NAFRA) of 1990
i. Endangered Species Act of 1973, as amended
j. Clean Water Act
k. Clean Air Act

(3) Compliance with the provisions of the ICRMP via FHL Training Regulation 350-2 will be ensured for all Installation users through the completion and implementation of a Memorandum of Understanding (FHL Form DPT-3:Environmental MOU) between the Commander, FHL and any user of FHL Installation resources. Each MOU will require compliance with the Installation HPP and has included provisions to assign penalties for violations of the HHP. Civilian use of the Installation shall comply with ARPA regulations that will be enforced by legal authorities.

b. Archeological Sites Inventory and Historic Resources

(1) There are approximately 600 archeological sites formally recorded within FHL boundaries and are under Army jurisdiction. All known archeological sites are "Restricted Entry" areas and generally marked with orange traffic cones. Although much of FHL is surveyed for archeological resources, it is conceivable that cultural item[s] may be discovered during a training exercise. If cultural materials are found, stop all ground-disturbing activities and immediately report the location using a six-digit grid to Range Control. Items that may be encountered include stone tools or flaking debris, marine shell in dark soil, human remains, and/or pieces of ceramics, glass, or metal scattered on the ground surface or below ground.

(2) Federal law prohibits the collection of artifacts or disturbance to archeological or historical resources on federal lands. Intentional vandalism to, defacement, or looting of archeological sites is punishable by fines of up to $100,000 and a 1-year jail term (ARPA 1979, as amended).

(3) Bivouac and tactical positions will be located no closer than 100 meters from cemeteries. All known cemeteries are fenced, marked, and maintained. Should an unfenced cemetery be discovered during training exercises, its exact location will be reported to Range Control.

(4) Commanders are responsible for ensuring that FHL archeological and historical sites are not damaged. In the event that cultural resources are accidentally uncovered or disturbed during training, the ongoing activity will cease and Range Control will be contacted.

c. ICRMP Archeological Clearance Program

(1) The Archeological Clearance Program is intended to streamline the NHPA Section 106 process to facilitate training actions that will not impact significant FHL archeological sites. Archeological documentation is required in advance for most activities that require Environmental Review (discussed in section 5-2). The following is a list of activities that require an Environmental Review.

a. All dig plans involving all hand and mechanical excavations except hasty fighting positions (hand-dug holes measuring 6 inches maximum depth, by an individual's body length and width).

b. All explosives/demolition training plans involving the placement of targets or mine fields, use of high explosive (HE) munitions such as grenades or mortars, and demolition training activities except on approved ranges.

c. All "troop/vehicle concentrations within a 100 meter diameter or less area, over an extended period of time," defined as 100 or more personnel and 25 or more vehicles for periods of 72 hours or longer, such as an administrative bivouac, field mess, or rearming/refueling points.

d. Any activity or training in TA 25.

(2) Delegated Archeological Clearance Program Authorities. To facilitate the military mission while fulfilling the Army's legal obligations for historic preservation compliance (e.g. Section 106 of the NHPA). The following post staff position is

delegated certain authorities - Officer: In the interests of expediting the review and documentation of projects or actions which qualify for archeological clearances, the Officer may assume the following authorities.

a. Coordinate with land users, planners, or managers to obtain the necessary project descriptions as early in the planning process as possible.

b. Maintain up-to-date copies of archeological base maps showing previous survey areas and recorded sties.

c. Review archeological base maps to determine whether a proposed project or action is situated within a previously surveyed area and whether archeological sites are located within or near the project area.

d. Cultural Resources

(1) Federal Law mandates that all cultural resources eligible for listing on the National Register of Historic Places must be protected from damage. Cultural resources include, but are not limited to, historic buildings and structures, cemeteries, and historic and prehistoric archeological sites. Areas on FHL containing National Register eligible cultural resources are marked with OFF LIMITS signs and/or Seibert Stakes and shall be avoided.

(2) Protected properties and their marked boundaries are surrounded by a 30 meter buffer. Within this area no excavation, demolition, or tracked/wheeled vehicle traffic will be allowed. Adverse effects to cultural resources by these or other destructive activities can result in violation of Federal Law and the necessity for costly mitigation measures. Federal Law prohibits Artifact/Relic collecting on any cultural resource located on FHL. If accidental discovery of items that appear to be cultural remains (historic foundations, graves, historic or prehistoric artifacts, etc.) occurs during emplacement excavation or construction projects, all work shall cease within 30 meters radius of the find. Immediately contact Range Control and DPW, Environmental Division.

A-2. Use of Vehicles

a. Off Road Use: Use existing roads and trails to avoid unnecessary destruction of vegetation and soil erosion and to avoid leaving a "signature" visible to hostile aircraft.

b. Stream crossings and fording activities are authorized only at established water crossing sites.

c. Vehicle Washing:

(1) Wash all vehicles only at the vehicle wash rack facility. Clean water rinsing, only to remove dust, steam cleaning of engines or undercarriages can be done in motor pools equipped with functional oil/water separators. Soaps shall not be used in any circumstance as they emulsify oils and defeat the purpose of the oil/water separator.

(2) Vehicle washing in any open body of water (i.e., streams, ponds, lakes, and wetlands) is strictly prohibited.

A-3. Field Activities

a. Field Latrines:

(1) Units may request chemical latrines on their TSR.

(2) Temporary Latrine Facilities (ex. Straddle trenches, urinal pipes, soakage pits) are allowed on FHL with an approved Environmental Review.

b. Use of Water:

(1) Water Purification Points.

a. A environmental review is required for all water purification operations. IAW environmental regulations, any release of backwash and brine water on site are prohibited. Backwash and brine water will be disposed of at a designated drop-off point. Units shall be prepared to contain and haul fluids for disposal. Potential locations for water purification/ROWPU operations are at all ponds, pending environmental approval.

(2) Field Mess Operations are handled on a case-by-case basis and must have approval of the Environmental Division and Range Control.

c. Communication Wire: Upon completion of training both cable and/or wire will be removed completely prior to unit release/clearance.

d. Barbed, Ribbon and Concertina Wire: Upon completion of training, all wire will be removed from the field by the using unit.

e. Camouflage:

(1) Absolutely no scrub brush, saplings, or trees will be cut under any circumstances without prior approval of the Environmental Division.

(2) Requirements for trees/logs are handled on a case-by-case basis and must have approval of the DPW Environmental Division and Range Control.

A-4. Hazardous/Toxic Materials

a. Used Oil, Contaminated Fuel, Cleaning Solvents and debris from cleaning (i.e., cleaning rags, absorbent pads).

(1) Used oil and contaminated fuel shall be disposed of only at designated storage tanks; no such fluids will be disposed of in the field. For used oil collection points and the contaminated fuel disposal point locations contact DPW, Environmental Division, (831)386-2727 for assistance.

(2) Used oils are not to be mixed with other wastes such as fuel and/or cleaning solvents. Once chemicals are mixed together (even with water) they are no longer hazardous materials but are then treated as hazardous wastes.

(3) If field activity prevents use of cleaning solvent equipment or used oil/contaminated fuel collection points, the used solvent & POLs shall be segregated and identified, stored in 5 gallon containers and returned to the motor pool or contact DPW Environmental Division, (831)386-2791. Parts cleaning machines (solvent) are provided by contract for the motor pools by PW and are not deployed as unit TO&E. Solvents shall not be discharged into ground water.

(4) 100% of all M5 White Smoke Pots or any other residue from a munitions that is considered HW once detonated will be returned to the ASP Residue Yard.

b. Hazardous Materials/Waste Turn-In: Contact Hazardous Waste Manager (831)386-2791 at DPW, Environmental Division for turn-in of:

- ♦ Acids
- ♦ Asbestos
- ♦ Batteries
- ♦ Chemical Defense Equipment
- ♦ Filter Elements
- ♦ Lead Dust
- ♦ Paint/Thinners
- ♦ PCB's
- ♦ Pesticides/Chemicals
- ♦ Training Kits
- ♦ Unknowns
- ♦ Used POLS (contaminated)

c. Hazardous Waste Sites: Dumping Petroleum, Oil and Lubricant (POL) products or hazardous wastes along roads or in the field is a violation of Federal law. CID and the Federal Attorney's Office actively investigate such cases.

d. POL Refueling Points and Fuel Bladders:

(1) All re-fueling operation locations (i.e., TPUs, fuel tanks, bladders, 5 gal cans etc.) require a Environmental Review (REC). Units shall have spill kits on site to include clear plastic bags, shovels and absorbent pads/materials.

(2) Re-fueling points and fuel blivets shall be located at least 150 meters away from wells and surface waters of any type.

(3) Ground storage for POLs (i.e., fuel tanks, bladders, etc.) requires a polyethylene lined earthen berm great enough to contain 100% of all fluids or Installation approved containment device (REC required).

e. POL Spills:

(1) All spills are reportable no matter what size or volume. Drips and weeps are considered a spill and shall be reported.

(2) Any release is a spill (i.e., drips and weeps).

(3) All POL spills will be reported immediately to the Fire Department directly at (831)386-2517 or through Range Control.

(4) POL spills entering a water source will be reported immediately to the Fire Department. Call (831)386-2517 directly or through Range Control or the DPW Environmental Office.

A-5. Solid Waste NEEDS DPW REVIEW/UPDATE

All ammunition residue and packaging must be returned to the ASP for processing and disposal. These materials are not authorized to be disposed of in range dumpsters. The wood dump will not accept ammunition boxes which have not been processed and certified by the ASP residue turn in point. [This section was taken from another Installation's regulation. Does FHL have a program/process in place for this?]

a. All recyclable items (paper, cardboard, glass, plastic, tin and aluminum, food grease) must be separated and brought to the FHL Transfer Pont for processing. Hours of operation are Mon.-Fri., 0800-1500. A recycle trailer is located at the transfer point. All containers must be rinsed clean and cardboard must be flattened.

b. Wood (raw and finished) is to be brought to the Installation transfer point located in the cantonment area. Hours of operation: Mon-Fri (only) 0730 - 1600.

c. Metal - All metals are to be turned in at the transfer point.

d. For further guidance, call the DPW Help-Line, at extension (831) 386-2217.

A-6. Wetlands

a. Training activities must be minimized in and around wetlands, streams, and other water bodies on FHL.

b. Excavation or depositions of any fill material into wetlands or the fording of streams, ponds, lakes, wetlands, etc., can and will trigger jurisdictional action by the US Army Corps of Engineers Regulatory Branch.

c. Sensitive Wetlands and Mitigation project areas are marked with OFF LIMITS signs and/or Seibert Stakes, and shall be avoided.

A-7. Fish and Wildlife and Endangered Species

a. It is illegal to pursue, shoot, hunt, kill, capture, or trap protected wildlife or engage in lesser acts that disturb or harass such animals. Threatened/endangered species at FHL include arroyo toads, purple amole, vernal pool fairy shrimp, California condor and San Joaquin kit fox. All eagles, hawks, owls, songbirds, and their nests are protected and may not be hunted or taken.

b. It is illegal to hunt, trap, or take game fish or wildlife except during the open season and during the hours permitted by law and regulation.

c. Hunting, fishing, trapping, and related activities are regulated on FHL by FHL Regulation 420-26.

d. Sensitive areas and monitoring station areas may be marked with OFF LIMITS signs and/or Seibert Stakes, and shall be avoided.

e. For more information contact the DPW Environmental Division.

A-8. Areas of Concern

a. As noted in certain sections of this document, areas of concern are marked with OFF LIMITS signs orange cones, stakes, flagging, and/or Seibert Stakes and are to be avoided.

b. Areas of concern can include: cultural and archeological sites, wetlands areas and project sites, wildlife monitoring sites, and areas of suspected and known contamination.

A-9. Record of Environmental Consideration (REC)

a. Federal Law and Army Regulation require environmental documentation for all federal actions (e.g. military training, new technology/equipment testing, construction projects, and real property transactions).

(1) Provide the name/description of the planned activity.

(2) Specify the date and duration of the proposed action beginning with the field preparation date and ending with the field closure date.

(3) List the proponent: unit name, address, point of contact, and phone number.

(4) Describe the proposed action:

a. 8 digit grid coordinates.

b. Radial distance, in meters, from the center grid

c. Level of activity: number of personnel, number and type of equipment, number and type of weaponry, etc.

d. Describe the type of activity:

Mess/shower/laundry	Include the amount of gray water and the number of soakage pits requested (specify dimensions).
DECON	All vehicles shall be washed at authorized wash rack prior to decon activities. Use of soaps/solvents or other chemical is strictly prohibited. Spraying of vehicle engines and undercarriages for any purpose is strictly prohibited. Include the water source, number and type of vehicles, and number of gallons to be sprayed per day/mission.
Water purification or treatment, etc.	Number of gallons water, chemicals used and at what concentration.
Water crossing or bridging operations	Prohibited unless coordination takes place to apply/receive approved Waters/Wetlands Federal and State permits.
Petroleum, Oils and Lubricants (POL)	Number of gallons on site, type of product and how stored (i.e., truck/tank/bladder, on or above the ground storage or fixed).
Maintenance	Specify the type/level of maintenance and detail the proposed activity (i.e., estimate gals of waste fluids, storage methods, etc.). Locations for TM-10/20 and DS maintenance are approved on a case-by-case basis. Field spill kits are required (i.e., clear plastic bags, shovels, absorbent pads, etc.). Early coordination with DPW Environmental Division is required for fluid collection and additional guidance.
Excavation	Type (i.e., borrow pit, grading, trenches, survivability positions: One-man, two-man, crew served, bunkers, tracked or wheeled vehicles, etc.). Provide dimensions, configurations, equipment required to accomplish task, supporting unit, preparation date, closure date, etc.

Demolition	Type, amount of explosive material, training objective, cleanup procedures. NOTE: All demolition actions outside the designated demolition range will require additional environmental review, which will likely result in delays. Coordinate early.
Construction/Renovation	Description of proposed action and purpose. This includes all contract, troop labor and self-help requests, etc.
All other actions not described here shall require consultation with the DPW, Environmental Office, and NEPA Coordinator to determine the appropriate course of action for NEPA compliance.	

A-10. Conclusion

a. The National Environmental Policy Act (NEPA) requires us to be stewards of our environment. We, as leaders, must assess our mission needs and identify potential impacts to the environment, identify alternatives, and choose those which meet our goals and minimize environmental impacts. IAW AR 200-1 and 32 CFR 651, we are directed to consider the environment, our mission needs, and how our actions today will effect our environment in the future.

b. Investigation by EPA, US Fish and Wildlife Service or local law enforcement agencies of illegal activities occurring in the training areas at FHL have the potential to result in criminal charges, indictment, and conviction of garrison personnel for violation(s) of environmental laws. This is indicative of the seriousness and consequences that non-compliance with environmental regulations is having. These laws apply to military and civilian personnel.

c. Environmental Briefings are scheduled throughout the year and are available upon request by contacting the Environmental Division at (831) 386-2791.

d. For further information on environmental concerns and environmentally sensitive areas of FHL contact the Environmental Division at (831) 386-2791.

A-11. Wood cutting

a. Wood cutting is available by permit only for eligible persons residing in Monterey County. Authorized personnel include Active Duty Military, retired Military, DoD Civilians working on FHL, and FHL Contractors whose contracts are for at least one year. Contact the Natural Resources Manager at (831) 386-2219.

Annex B
Aviation Operation

B-1. Aerial Gunnery

a. General

(1) All aerial gunnery will be conducted according to the SOP and AR 385-63, and will be under the supervision of warrant or commissioned officer acting in the capacity of Officer in Charge (OIC). The OIC is responsible for the safe operation of the range.

(2) The range includes numerous firing points and lanes for aerial gunnery, pads for arming and refueling, control tower, and administrative areas for messing, parking, etc.

(3) This SOP is not to be construed as "all inclusive." Detailed instruction on the conduct of helicopter gunnery will be found in publications pertinent to each weapon or system being fired and the unit's SOP.

b. Aerial Gunnery Definitions

(1) Officer in Charge (OIC) - A qualified warrant or commissioned officer assigned the responsibility for the safe operation of all aircraft and weapon systems being utilized for gunnery.

(2) Aircraft Commander (AC or Pilot-in-Command) - A qualified warrant or commissioned officer assigned responsibility for the safe operation of assigned aircraft and weapon systems.

(3) Ready Line - The line on which aircraft are positioned for the on loading of student gunners and ammunition.

(4) Start Fire Line (SFL) - The line on the ground clearly marked and visible to the AC, over which an inbound aircraft may be cleared to commence firing.

(5) Cease Fire Line (CFL) - The line on the ground, clearly marked and visible to the AC, at which all firing will cease and ammunition will be removed from guns.

(6) Firing Lane - Area of the range between the Start Fire Line and Cease Fire Line in which all firing from the aircraft must be done.

(7) Weapon Systems Cleared - All ammunition removed from the assembled system or system

c. Aerial Gunnery Range Operations

(1) For detailed instructions regarding training on helicopter gunnery ranges, refer to training directives and unit SOP.

(2) This document was prepared as a supplement to assist OICs in the safe and efficient use of the range, and is not intended to conflict with AR 385-63 or other training and safety directives.

(3) Prior to loading and firing of aircraft weapons, the OIC will direct one or more aircraft to overfly the firing lane, target area, impact area, and adjacent danger areas for presence of personnel and/or vehicles. A report of "Clear" will be received prior to loading and firing aircraft weapons. If, at any time during range firing, personnel are observed in or near the surface danger zone, an immediate Cease Fire will be called.

(4) The range will be under the complete control of an appointed OIC who is either a warrant or commissioned officer and a qualified pilot in the aircraft and weapons systems being used on the range. The OIC will be responsible for all activities on the range, and will be located in the range tower.

(5) Before arming or firing commences on a range, positive radio communications must be established between the OIC and FHL Range Control, and between the OIC/RSO and posted guards before clearance to open the range is granted. Radio communications must be established between the OIC and AC of each aircraft operating on the range. Should communications between the OIC and aircraft or between the OIC and FHL Range Control be lost, an immediate Cease Fire will be imposed and all weapons will be cleared.

(6) The OIC will ensure that all pilots using the range are familiar with the range lay out.

(7) All aircraft reporting to ranges for gunnery training and departing from ranges upon completion will do so with all weapons "cleared." Aircraft commanders are responsible for inspections to ensure that all weapons are cleared.

(8) Weapons loading (crew compartment weapons) will take place in the air under direct supervision of the assigned assistant instructor and with the aircraft oriented so that weapons are pointed down range.

(9) All aerial gunnery will commence at the SFL and terminate at or prior to the CFL, and will be conducted under the supervision of the AC in conjunction with clearances received from the OIC.

(10) Aircraft inbound for firing runs will enter the firing lane on a heading announced by the OIC.

(11) Vehicle parking, messing, briefings, and other administrative activities will be established or conducted in designated areas.

(12) Upon completion of firing and prior to vacating the range, the OIC will ensure that a thorough police of the range is accomplished and all trash, ammunition components, containers, boxes, cartons, etc. are removed from the range. All trash will be properly disposed of. All wire (TOW, communications, barbed/concertina) will be removed and taken with the unit.

d. Aerial Gunnery Ground Safety

(1) Ground support personnel must be constantly aware of the dangers involved in live fire training. Supporting personnel will be trained in the care and handling of ammunition, loading and unloading procedures for each weapon, and procedures for

working near operational helicopters. Rearming areas will be separate from refueling points. All requests essential to the operation of the range should be communicated to the unit's logistics OIC as soon as possible, to allow maximum reaction time.

(2) Personnel will not pass in front of a loaded weapon system after a helicopter has landed.

(3) When approaching a helicopter, personnel will approach from the 90 degrees side position, and only after receiving visual recognition from the aircrew.

(4) All personnel will exercise extreme caution while walking under the main rotor arc or in the vicinity of the tail rotor.

(5) The helicopter will not be moved until an armorer moves out of the main rotor arc at the 90 degrees side position and signals "All clear."

(6) Prior to departing from the rearming/disarming area for home station, support personnel will remove all ammunition from the helicopter.

(7) The helicopter must be grounded prior to any work being performed, and before the aircrew enters or exits the helicopter.

(8) All personnel working in or near the helicopter will have sleeves rolled down and will use proper hearing protection devices.

(9) When operations are conducted at night, ground personnel will always carry a flashlight or wear a head lantern, and will make sure that the light is on when they are working near the helicopter.

e. Aerial Gunnery General Safety

(1) Aircraft will be cleared off the loading zone or ready line by the OIC only.

(2) Weapons will be pointed down range and within range fan limits.

(3) Weapons will be armed only if all of the following conditions are met as determined by the AC:

a. Aircraft weapons are pointed down range and within range fan limits.

b. No other aircraft is downrange in the surface danger zone (aircraft flying in trail may be cleared by the OIC for formation flying and team training).

c. The AC from the range OIC to "go hot" has received clearance.

(4) Whenever possible, aircraft will be flown at such altitude and over such terrain where an emergency landing could be safely executed, except when on a practice run, firing run, or when in the maneuver area.

(5) Radio communications will be maintained between aircraft and the range OIC. When communications fail or are interrupted, the AC will immediately cease all firing and clear weapons until communication is restored. The unit will provide its own radio communications equipment for the range tower.

f. Aerial Gunnery Range Safety requirements for firing aerial weapons are contained in AR 385-63. For safety requirements for each system, see the applicable -10 technical manuals. In addition to the inspection of individual weapons, firing safety includes making sure that:

(1) Clearance is received from the controller before placing weapons on fire.

(2) Weapons are pointed down range and within range fan limits.

(3) Personnel on the ground are not in front of weapons or in the back-blast area.

(4) No other aircraft are in the surface danger area.

(5) Weapons are not fired at less than the minimum safe slant range.

g. Aerial Gunnery Firing Safety Rule Whenever possible, weapons will be pointed down range or away from populated areas during all range operations.

(1) Armament subsystems are considered safe for range traffic pattern operations under "switches off" conditions. A "switches off" condition does not include pulling circuit breakers of the weapon systems.

(2) Pulling circuit breakers of weapons systems ungrounds the systems; therefore, the circuit breakers should be left in, but all arming switches should be off. Refer to the appropriate technical manual for correct safety procedures for each weapon system.

(3) Armament subsystems may be placed in the "arm" position only if all of the following conditions are satisfied:

a. The helicopter must be oriented down range at the firing point.

b. No other aircraft are permitted in the surface danger zone. Helicopters maintaining lateral positions to each other may be permitted to conduct formation firing and team training.

c. Clearance must be received from a control point or an airborne controller to arm the weapons.

(4) Operations and positioning of the arming switch are the responsibility of the instructor pilot or pilot in command. When conducting NOE hover fire, the armament system will not be armed until the aircraft has arrived at the firing position.

h. Aerial Gunnery Door Gunner Training

(1) Pilot or co-pilot doors will be open unless the guns are cleared.

(2) Minimum slant range to bullet impact will be 300 meters.

(3) Misfires will be handled in accordance with pertinent technical field manuals. After a second attempt has been made to fire a weapon that has malfunctioned, the aircraft will land on the Ready Line with the weapon pointed down range. When proper precautions have been taken, the misfired ammunition will be loaded and disposed of in accordance with AR 385-63 and this regulation.

(4) The assistant instructor on board is responsible for arming and disarming weapons. The AC will order Cease Fire when he observes firing that is impacting outside the impact area or limits of fire, or in any way is jeopardizing the safety of personnel or property (government or civilian). The AC will give oral commands to load or clear weapons and will physically check to ensure that all weapons are clear prior to departing the range upon completion of training exercises.

B-2. Aircraft and Armament Emergency Plan

a. Aircraft and armament emergencies are defined as emergencies involving aircraft accident, incident, forced or precautionary landing, or emergency involving a weapon system accident, incident, or inadvertent firing, or where ammunition has been dropped or fired outside the prescribed impact or danger area.

b. All accidents and/or incidents as described above will be reported immediately by the OIC or other officer on the range, by radio (FM 41.05, RANGE CONTROL), or telephone to FHL Range Control. All reports should contain, as a minimum, the following information:

(1) Location of accident/incident
(2) Type of aircraft and/or weapon involved
(3) Time of accident/incident
(4) Injuries to personnel, if any
(5) Damage to property, if any
(6) Other pertinent facts available

c. Personnel making the report will identify themselves to FHL Range Control, and will not break communications with Range Control until properly released.

d. Dispatch an ambulance and crash rescue team to the site simultaneously with the radio or telephone report.

e. Designate one helicopter to proceed to the site to assist medical evacuation and crash rescue teams (if required) and to establish radio communications at the site.

f. Direct the remaining helicopters to the firing line or loading area to await further instructions.

B-3. Aviation

(1). Purpose

This manual has been written to standardize aviation operations, enhance training opportunities, and promote aviation safety at FHL by establishing policies, procedures, and rules for aviation commanders, supervisors, units and crews operating at FHL. In addition, it should serve as a planning guide for units wishing to train at FHL.

(2). Applicability

a. The policies, procedures, and rules contained in this chapter are applicable to the operation of all aircraft at FHL.

b. Pilots will abide by their own service, unit, or aircraft procedures if aircraft safety is directly affected and if those procedures are more stringent than those established in this chapter. Unit commanders or pilots shall make FHL Range Control Operations aware of those deviations so that the necessary coordination may be made with other airspace users.

c. During certain periods, such as major field training exercises or materiel systems operational tests, temporary additions or changes to this chapter may be in effect in order to meet operational requirements. Pilots shall be alerted to any temporary flight restrictions, additions, or changes through a notice to airmen (NOTAM), FHL daily aviation briefings, and/or Airmen's Procedures Guides, as applicable.

d. Aviation training operations on FHL are authorized for all active and reserve components Department of Defense Agencies, government support contractors, and other federal, state, and local agencies having a legitimate need to conduct aviation operations on the Installation. The provisions listed in AR 95-2, Chapters 15 and 16, which are concerned with civilian use of military airfields must be satisfied before approval for civilian use of FHL airspace is granted.

(3). Definitions

a. "TUSI ADVISORY" is the call sign for the aviation operations command and control station at Range Control. TUSI ADVISORY operates on VHF 126.2 or UHF 229.5.

b. "RANGE CONTROL" is the call sign for the Net Control Station (NCS) of the Range Control Safety net. RANGE CONTROL operates on FM 41.05.

c. The use of "RANGE CONTROL" and "TUSI Advisory" will be synonymous with FHL Range Control.

d. The terms "Pilot-in-Command" (PIC) and "Pilot" are used synonymously and refer to the person responsible for the safe operation of the aircraft.

(4). Duties

a. FHL Aviation Officer is responsible for the following:

(1) Management, direction, and supervision of aviation operations at FHL.
(2) Formulating and maintaining the FHL Pre-Accident Plan.
(3) Maintaining (revising/updating) the FHL aviation SOP.
(4) Implementing the aviation safety program.
(5) Implementing the foreign object and debris (FOD) control program.

b. Aviation NCO is responsible for the following:

(1) Assisting the Aviation Officer.

(2) Posting changes to applicable regulations and ensuring all publications, to include FLIPS, are up to date.
(3) Coordinating with, and assisting units training at FHL.
(4) Administering the FOD control program, to include documenting FOD control activities on DA Form 1594.
(5) Conducting monthly helipad inspections (TUSI and FHL MAS helipad).
e. Responsibilities
(1) Commanders of aviation units shall conduct training programs which will ensure that their pilots are thoroughly familiar with the FHL flying area, the contents of this SOP, and the contents of FHL Training Regulation 350-2. This training program will include orientation flights of the FHL flying area.
(2) Pilots of other aircraft (government contract, state operated, etc.) shall receive a briefing on the flying area from FHL DPT personnel and shall familiarize themselves with the contents of this SOP, the local flying area, and FHL Training Regulation 350-2.
f. References
(1) Required publications: AR 95-1 (Flight Regulations), AR 95-2 (Air Traffic Control, Airfields, Flight Activities, and Navigational Aids), AR 385-63/MCO 3570.2A (Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat).
(2) Related publications: AR 385-40 (Accident Reporting and Records), TC 1-205 (Night Flight Techniques and Procedures), DOD Flight Information Publication General Planning.
g. Scheduling
(1) All aviation operations conducted at FHL MUST be scheduled utilizing the Training Support Request (FHL Form DPT-2) and FHL Aviation Prior Planning Request (PPR) (FHL Form DPT 30).
(2) The completed FHL Form DPT-2 can be mailed/faxed/emailed to FHL DPT Operations. It is imperative that FHL DPT receives the appropriate forms prior to aircraft entering FHL airspace. The PPR (FHL Form DPT-30) is completed by the FHL Range Control firing desk operator. The PPR is to be used only for scheduling use of R-2513, and not for scheduling specific training events.
h. Tusi Advisory Procedures
(1) General. Tusi Advisory is operational 24 hours a day, seven days a week ONLY when troops are operating in FHL training areas. Normal operating hours are 0800-1700 Monday-Friday. Advisory frequencies are: VHF 126.2, UHF 229.5 and FM 41.05.The FM frequency is primarily used for contact with ground maneuver units and for training operations involving live-fire exercises (standard and non-standard). Aircraft shall use this frequency only under emergency conditions or when communications with Tusi Advisory on VHF and/or UHF are not possible due to weather, terrain, or communications equipment failures. The FM frequency is relayed throughout the Installation via a system of repeaters. The VHF/ UHF frequencies are not.
(2) During large-scale aviation operations requiring ATC support, Tusi Advisory will relinquish its advisory responsibility to the ATC agency. Tusi Advisory will then revert to an advisory agency for the heliport only.
(3) FHL Aviation Briefing. This briefing advises pilots of live-fire exercises, no-fly areas, open or closed training areas, and other fight hazards. Aircrews can obtain this briefing telephonically by calling FHL Range Control at: (831) 386-2403/2503, DSN 686-2403/2503, or by radio on Tusi Advisory frequencies. This briefing will be automatically provided to aircraft doing an initial entry into FHL airspace.

B-4. Risk Management Integration

A risk management assessment matrix should be completed prior to the conduct of any tactical training exercise. Training events of special concern include, but are not necessarily limited to, the following:
(1) Parachute operations.
(2) Air assault operations.
(3) Establishment of forward area arming and refueling points (FAARPs).
(4) Hot refuel operations.
(5) Nap-of-the-Earth (NOE) flights.
(6) Night Vision Devices (NVD) flights.
(7) AERIAL GUNNERY: Of specific concern are measures that the unit will execute to preclude the expenditure of munitions from a positive firing angle, unless a positive firing angle is required for a SPECIFIC type of ordnance.

B-5. Radio Communications

a. Flight Following Requirements.
(1) Pilots operating from field sites with a unit flight operations section or an attached tactical ATC section shall conduct flight following activities as directed by their unit commander.
(2) Pilots of single/multiple aircraft missions operating from other than field sites IAW sub-paragraph (1) above, shall report their position and intentions every 20 minutes, or at other prearranged times, to Tusi Advisory/RANGE CONTROL.
b. Reporting Requirements. Pilots shall report entry into FHL airspace, provide Tusi Advisory with their PPR number, and confirm that they have received the current aviation briefing.

c. Monitoring Requirements. Pilots shall monitor Tusi Advisory during all flight operations. If TUSI Advisory frequency (VHF 126.2/UHF 229.5) is not operational, pilots shall monitor RANGE CONTROL (FM 41.05).

d. Air-to Air Communications Requirements. In order to enhance flight safety, pilots of single aircraft missions or pilots in multiple-ship operations operating outside the Schoonover Airport Traffic Area shall monitor and transmit traffic advisories on VHF 126.2/UHF 229.5. If VHF/UHF radios are not installed or inoperable, pilots shall monitor RANGE CONTROL.

e. Combat Control Teams (CCT) must establish and maintain communications with Tusi Advisory/RANGE CONTROL during C-130/C-141aircraft operations.

f. All fixed-wing pilots must clear into R-2513 with Tusi Advisory/RANGE CONTROL or the appropriate ATC agency before departing the San Antonio Reservoir/Big Sur VORTAC. Aircraft will notify Tusi Advisory upon departure from R-2513.

B-6. Hazardous Waste

a. Coordination for the proper disposal of all unit-generated hazardous wastes will be made with the FHL Environmental Office (831) 386-2216.

b. Company-size and larger aviation units training at FHL for more than 24 hours are required to assign a hazardous waste officer.

B-7. FHL Daily Aviation Briefing

a. FHL is responsible for making available current flight restriction data, information that is regulatory in nature, and information to enhance the safety of flight.

b. The Aviation Briefing format is FHL DPT Form 31: FHL Aviation Brief.

c. Briefing material shall be maintained in a current status and be available to pilots at FHL Range Control Firing Desk, and unit flight operations when the unit is operating from a field location.

d. Pilots shall obtain a current aviation briefing prior to conducting flight operations at FHL.

e. Pilots shall not operate their aircraft in R-2513 without a current aviation briefing.

B-8. Live Fire Exercise Briefings

a. During pre-flight planning the aircrew will contact Tusi Advisory/FHL Range Control to obtain a current live-fire exercise briefing. Once aircrew personnel are on the ground at FHL and have reported in to FHL Range Control, they shall check the NOTAM board in the FHL Range Control Flight Operations section prior to the first flight of the day.

b. Conflicts with indirect live fire exercises. Aviators will ensure that their intended flight path will not conflict with indirect live fire exercises. Conflicting flight path is defined as:

(1) Flights above or forward of the firing line at an altitude less than 1,000 meters above the published maximum ordinate for the munitions being fired. Tusi Advisory will provide this information to flight crews.

(2) Flights closer than 1000 meters to an indirect fire weapon position surface danger zone (range fan) while flying at an altitude less than 100 meters below the prescribed maximum ordinate for the munitions being fired.

c. Pilots are encouraged to avoid flying in the proximity of posted live-fire exercise surface danger zones (range fans) for either direct fire or indirect fire weapons systems. Any flight in proximity to any live-fire exercise (overhead flight, lateral proximity) will be accomplished at a minimum of 1000 meters from the edges of the range fan and a minimum of 1000 meters above the prescribed maximum ordinate for the munitions(s) being fired.

B-9. Flight Planning

a. Flight planning facilities are located at Tusi Flight Operations (Bldg S-320C). A military weather forecaster is not present; however, weather information can be obtained telephonically from Beale Air Force Base, DSN 368-9134/9135, or from the 30th Weather Squadron, Vandenberg AFB, DSN 276-8022.

b. Flight plans, with the exception of local flights, are processed through the Flight Service Station (FSS) system. All pilots will close their flight plans upon arrival (after landing) through a FSS, Tusi Advisory, or ATC agency.

c. Pilots can file flight plans with Tusi advisory via radio, but are encouraged to file in person. Tusi Advisory is operated by non-aviation qualified/certified personnel. Aviation units that bring their flight operations sections may conduct their own flight following activities after prior coordination with Tusi Advisory. Internal flight following is allowed only for aircraft on local flight plans.

B-10. POL Support

a. The FHL Directorate of Logistics (Supply and Services Branch) provides POL support, to include aircraft refueling operations. The FHL Firing Desk will coordinate refueling operations. Aviation units requiring POL/refueling support will utilize the FHL Training Support Request or Prior Planning Request.

b. Refueling operations can be conducted at Schoonover Airstrip, Tusi Heliport, FHL MAS helipad, or approved Forward Area Arming and Refueling Points (FAARPs).

c. Units conducting refueling operation at FHL will comply with the requirements in FM 1-111 and FHL Training Regulation 350-2. All forward area arming and refueling points (FAARPs) will be inspected by the responsible aviation unit's safety officer in conjunction with the FHL Safety Officer and/or DPT Operations personnel. The inspection will be documented IAW the inspection checklist found in FM 1-111.

B-11. Aircrew Billeting

Emergency Billeting. Aircrews that become stranded after duty hours and must remain overnight at FHL are authorized billeting space when available. The aircrew will contact the FHL Billeting Office, extension 2108/2644. Individuals will be charged a lodging fee based on rank.

B-12. Local Flying Area

a. References

(1) VFR Sectionals: Los Angeles, San Francisco.

(2) Area Planning AP/1B Chart, Military Training Routes - Western US, current edition.

(3) FHL Military Installation Map, Edition 3-DMA, Series V795S, Sheet FHL MIM, DMA Stock No. V795SHTLIGMIM, Edition No. 003.

b. Description. The local flying area starts due west of FHL on the pacific coast, continuing north up the coast to San Gregorio. The boundary then proceeds north-east on a straight line to a point three miles northwest of the Columbia Airport, then on a straight line to the lake due east of Woodlake Airport. The boundary then proceeds south to the mountain peak (elevation 6913) 15 miles northwest of Tehachapi Airport, then southwest to a point 5 miles east of Santa Barbara. From this point, the boundary proceeds up the Pacific coast to the starting point.

B-13. FHL Airspace

a. Description. FHL is comprised of approximately 165,000 acres and lies adjacent to the Los Padres National Forest and the Santa Lucia Mountain Range. See FHL Flight Paths and FHL Restricted Airspace 2513. The Federal Aviation Administration (FAA) has designated the terrain as mountainous area. Alder Peak (FE 473721) on the western boundary is the highest point with an elevation of 3,845 feet MSL. The lowest point is Lake San Antonio on the southeastern boundary at an elevation of 668 feet MSL.

b. R-2513

(1) A restricted airspace, R-2513, lies within the boundaries of FHL. The restricted airspace is up to and including flight level (FL) 240 (24,000 feet MSL). To provide for more efficient use of airspace and reduce coordination time, 8,000 feet MSL and above is released to Oakland Center, the controlling agency, for continuous use. When FHL, the scheduling agency, requires use of altitudes above 8,000 feet MSL, coordination is made directly with Oakland Center.

(2) For flights above 8,000 feet MSL, follow the procedures found in the Airmen's Information Manual.

(3) Flights below 8,000 feet MSL shall not be conducted unless the following conditions have been met:

a. The PIC or Air Mission Commander (AMC) has in his/her possession a map depicting the FHL Training Areas.

b. The PIC or AMC has received the current FHL aviation briefing.

c. The pilot will maintain two way communications with Tusi Advisory or RANGE CONTROL as appropriate.

d. The pilot will provide Tusi Advisory with his/her PPR number upon initial contact with Tusi Advisory and before entering FHL airspace.

c. Controlled Firing Areas. From time to time, controlled firing areas may be established at FHL.

d. Military Operations Areas. Five military operations areas (MOAs) surround R-2513 and are depicted on sectional aeronautical charts. These MOAs are designated Hunter Low A-E. Although these MOAs do not impose any flight restrictions or communications requirements with Tusi Advisory, they still pose a hazard for rotary-wing and turbo-prop fixed wing aircraft entering and exiting FHL airspace. Aircraft operating at air speeds in excess of 250 knots primarily utilizes these MOAs. Pilots operating under VFR while flying within these MOAs should exercise extreme caution. When the MOAs are active, the FHL aviation briefing and NOTAM will so indicate. The scheduling agency for use of these MOAs is: Commander, Strike Fighter Wing, US Pacific Fleet Naval Air Station, Lemoore, CA, DSN 949-3300/3301. Scheduling must be accomplished at least four hours before use.

e. Non-directional Beacon (NDB). An NDB is located near Schoonover airstrip. It transmits on a frequency of 209 kHz with an identifier of HGT. There is an approved helicopter NDB approach to Tusi, this approach has numerous altitude and weather restrictions.

f. Training Area Airspace and Usage Procedures. NOTE: The following procedures are not intended as an extension of any FAA Air Traffic Control System in the National Airspace System (NAS), but are based on airspace control methods outlined in FM 100-103 and TC 95-93.

(1) Aviation units and training aircraft must coordinate the use of specific training areas before flying in to the Installation. Entry via a published access route directly to Tusi Heliport or exit via the same route requires a current training activities briefing before entering FHL airspace. Tusi Advisory transmits this briefing while approaching aircraft are still outside FHL airspace.

(2) Units authorized surface rights to a training area have control of the airspace from ground level up to and including 300 feet AGL. No other aircraft will be allowed to enter that training area airspace without written permission from the controlling unit. Cooperative use (co-use) agreements shall be requested through FHL DPT Operations and Scheduling, which in turn authorizes direct unit-to-unit coordination for such uses. If the involved units cannot come to an agreement, FHL DPT Operations and Scheduling reserves the right to act as the final arbiter, and may, in certain circumstances, impose a co-use based on established criteria.

(3) Aircraft transitioning over training areas occupied by other units shall transition at 300 feet AGL or higher, unless a co-use has been effected. Aircraft transitioning over training areas that are not occupied may do so at any altitude determined by the pilot/aircraft commander.

(4) During periods when high-performance (speeds in excess of 250 knots) aircraft are operating at FHL, coordinating altitudes will be established and announced by NOTAM or an aviation procedures guide (APG) published by the controlling ATC activity. At those times, the published coordinating altitudes will supersede the ones listed in sub-paragraphs (2) and (3) above.

g. Access Routes. Five rotary-wing aircraft flight corridors have been established to ensure that aircraft are safely routed when approaching or departing FHL. (See FHL Flight Paths form) These corridors are the only routes authorized for entering and exiting FHL. Aircraft not flying directly to Tusi AHP can transition from these routes to a specific training area once the aircraft is within the Installation boundaries. Entry/Exit altitudes for all routes are: Entry 2,500 feet MSL/Exit 3,000 feet MSL. When weather conditions exist which preclude flying at the posted entry or exit altitudes, crews will fly at the highest safe altitude and inform Tusi Advisory of the amended altitude. Before entering or exiting the Installation, all aircraft must contact Tusi Advisory on VHF 126.2, UHF 229.5 or FM 41.05, and state tail number, type of aircraft, access route, and destination.

h. Access route descriptions:

(1) Northwest Pass. Follows the mountain draw southwest of Greenfield, and enters FHL in Training Area 3, vicinity of FE 560958, then directly to Coleman Reservoir (FE 546945), then to Upper Milpitas Road to Milpitas Airstrip (FE 530910), then follows Del Venturi Road to the FHL cantonment area, then to Tusi AHP.

(2) Bradley Pass. This corridor parallels Monterey County Highway G-18 from the south to Lockwood, CA (FE 730786). At Lockwood it parallels Monterey County High-way G-14 to Jolon (FE 645818), and then parallels Mission Creek Road to Tusi AHP. Pilots must use caution to avoid the NO FLIGHT AREA (NFA) along Bradley Pass. This NFA is described as a line running from North-South grid line 76 east to grid line 80, and in the south from South-North grid line 74 north to grid line 77.

(3) Jolon Pass. Northeast of FHL, this corridor parallels Monterey County Highway G-14 from the North to the town of Jolon. At Jolon, it parallels Mission Creek Road to Tusi AHP. Pilots should be alert in order to avoid the two sets of unmarked high voltage power lines that span the highest point on the Jolon Pass.

(4) San Antonio Pass. This corridor follows the San Antonio Reservoir from Camp Roberts, entering FHL in Training Area 29. It continues to parallel San Antonio Road to Tule Airstrip (FE 693752), and then bends to the right, paralleling Sam Jones Road, remaining clear of the Multi-Purpose Range Complex (MPRC). The route then follows Monterey County Highway G-14 until it reaches Jolon, and then parallels Mission Creek Road to Tusi AHP.

(5) Venturi Pass. West of FHL, this corridor begins at the Pacific Ocean coast between the Big Sur VORTAC and Cone Peak (FE 355906), entering FHL at Training Area 1. It then parallels Mission Creek road to Tusi AHP.

B-14. Noise Abatement, Aircraft Disturbances and Restricted Flight / No Flight Areas

a. In order to avoid unnecessary and undue disturbance to either the civilian or military communities caused by aircraft noise and operation, pilots shall plan and conduct their flights in order to accomplish the following:

(1) Bradley Pass. Pilots must maintain at least 2,500 feet MSL or risk flight violation complaints from local residents.

(2) Mission San Antonio. No flying within a 1,000-foot horizontal and vertical radius.

(3) FHL Ammunition Storage Point (ASP). No fly area.

(4) Town of Jolon. No over flight below 1,000 feet AGL.

(5) FHL Cantonment Area (Housing area). No over flight below 1,000 feet AGL.

(6) Avoid over flights of boaters, bathers, and campers on or around the San Antonio and Nacimiento Reservoirs below 500 feet AGL.

(7) Avoid flight operations or maneuvers that are unnecessary in accomplishing the mission when such flight activities would be conducted around or over personnel engaged in other, non-related activities.

b. There are seasonal restricted flight/no flight areas based on environmental concerns. Pilots/air crews will be informed of such areas during the aviation in brief.

c. Pilots may deviate from any portion of this section if weather and/or in-flight emergency conditions so dictate.

B-15. Flight Plans

a. All IFR and VFR flights that exit the local flying area or terminate at other than the departure point (off the Installation) require a properly prepared DD-175 flight plan and a DD-175-1 flight weather briefing. Sources other than an Air Force briefer or FSS briefer may be used IAW AR 95-1 and subject to the unit commander's approval.

b. Local flight plans. Units having training area surface rights and are supported by organic flight operations sections capable of radio communications with Tusi Advisory may maintain their own flight following activity. The unit's flight operations section will inform Tusi Advisory daily on the number of aircraft operations, times, altitudes, and training areas used. This ensures the inclusion of critical information in the FHL daily aviation briefing. Air crews desiring to fly beyond the limits of their unit's assigned areas must contact Tusi Advisory prior to transition and maintain flight following with Tusi until returning to their designated areas.

B-16. Tusi Heliport

a. Description. Tusi heliport is located at coordinates 36o 00' North and 121o 14' West. It is 23 nautical miles south of the Big Sur VORTAC (BSR), 51 nautical miles southeast of Marina Airport, and 28 nautical miles northwest of Camp Roberts Army Airfield (SYL). The heliport is located in the northeast sector of FHL within the cantonment area (See Figure B-16.1). The heliport consists of 36 prepared parking pads, a 570' X 50' lighted runway aligned on a 320o - 140o axis, a lighted windsock, rotating beacon, concrete revetment for hot refuel operations, and a hazardous waste collection point. Fire extinguishers are present on the airfield, as are foreign object and debris (FOD) disposal containers.

b. All parking pads have built-in anchors for mooring/tie down cables.

c. Tusi AHP has a hazardous waste collection point for small quantities of hazardous waste.

d. Unit personnel are responsible for the following:

(1) Thorough police of aircraft maintenance areas, parking areas, taxi hover lanes, and refueling areas.

(2) Ensure all aircraft are properly grounded/secured.

(3) Smoke only in authorized areas.

(4) Use extreme caution when ground-handling aircraft and use guides to ensure clearance on each side, front, and rear.

(5) Do not allow personnel to slow helicopter rotor blades by grabbing the blades, stabilizer bars, or drive shaft.

(6) Appropriate caution signs, i.e., "No Smoking", "Aircraft on Jacks", will be utilized and observed when required.

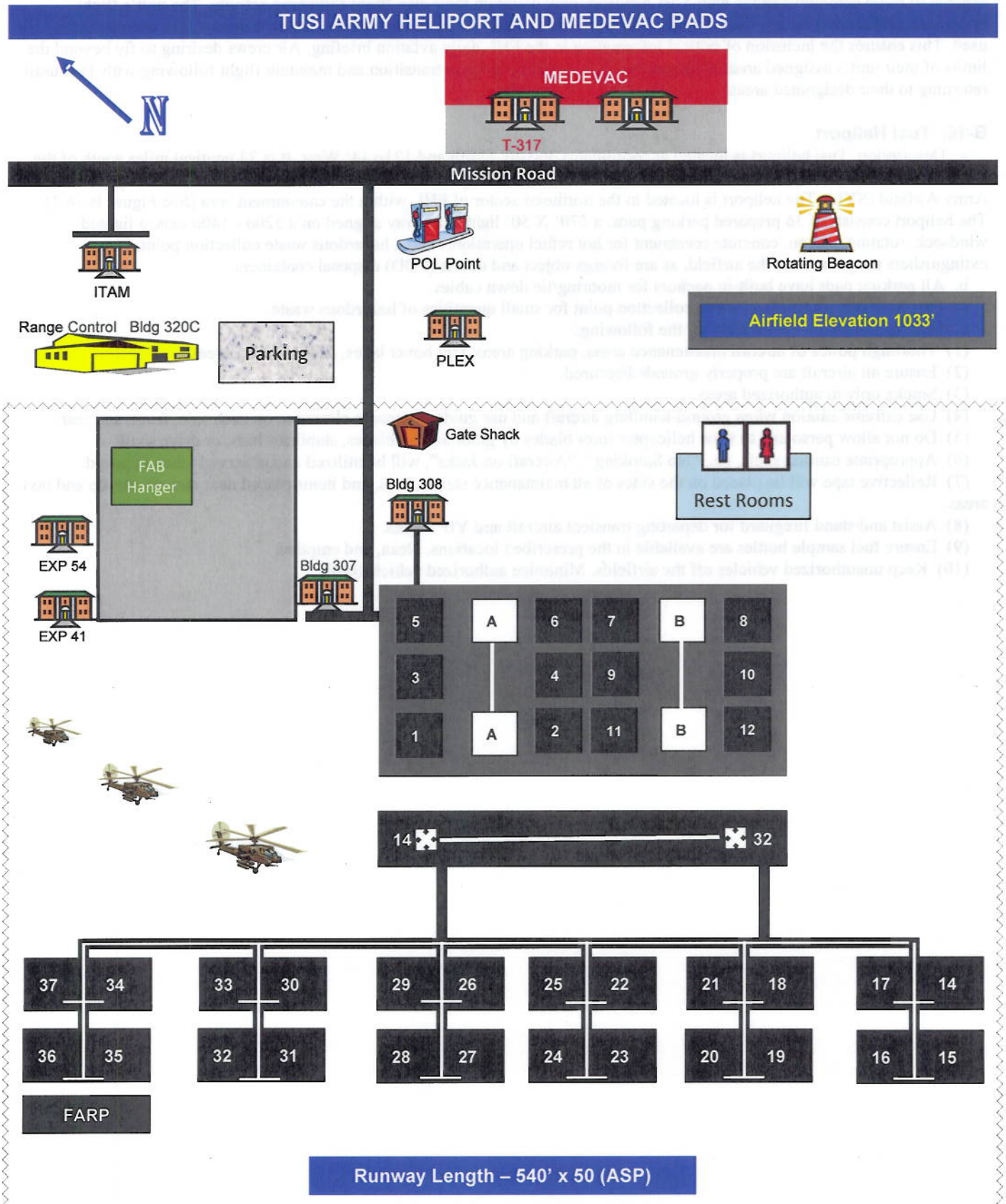
(7) Reflective tape will be placed on the sides of all maintenance stands, tugs, and items placed near aircraft run-up and taxi areas.

(8) Assist and stand fireguard for departing transient aircraft and VIP flights.

(9) Ensure fuel sample bottles are available in the prescribed locations, clean, and emptied.

(10) Keep unauthorized vehicles off the airfields. Minimize authorized vehicle traffic.

Figure B-16.1: FHL TUSI Heliport



B-17. Schoonover Tactical Air Strip and Airport Traffic Area (ATA)

a. Description. Schoonover Tactical Assault Strip is an unimproved (compacted dirt/rock) airstrip measuring 5800' X 110'. Schoonover is primarily utilized by C-130/C17 aircraft; however, OV-10 and A-10 aircraft are also authorized. The elevation of Schoonover is 960' MSL. Schoonover is utilized for both day and night tactical C-130/C17 operations. Normal procedures and routes for C-130/C17 operations in and out of Schoonover follow along the 103 Radial from Big Sur VOR and the 288 Radial from Paso Robles VOR during VMC.

b. When USAF aircraft is utilizing Schoonover, a USAF Combat Control Team (CCT) operates a tactical control tower and an Airport Traffic Area (ATA) in coordination with Tusi Advisory. When the USAF tactical control tower is utilized, the elevation of Schoonover shall be listed as 1900' MSL.

c. Schoonover Tactical Assault Strip is located at grid coordinates FE 625815.

d. There are no maintenance facilities at Schoonover.

e. Aircraft rescue/firefighting (ARFF) support for C-130/C17 operations is scheduled through Range Control. It is imperative Range Control Scheduling receive a flight matrix as shown on FHL Form DPT-2 to ensure that CFR support is on station.

B-18. TUSI MEDEVAC Station

a. During periods when a MEDEVAC aircraft is stationed at FHL aircraft parking will be at TUSI Heliport.

b. Airfield gate will remain locked and the crew will be issued a key for entry after normal duty hours.

c. All air crew will coordinate for billeting using the Training Support Request.

d. All Aeromedevac operations are requested and coordinated through FHL Range Control (Call sign "RANGE CONTROL" FM 41.05).

e. Fuel will be requested through Scheduling at Range Control.

B-19. Medical Aid Station (MAS) Helipad

a. The FHL MAS has a tarmac pad approximately 75 meters west of the clinic.

b. During Aeromedevac operations, FHL DES will close the access roads to the clinic.

B-20. Sling Load Operations

Aircraft are authorized to conduct sling load operations throughout FHL. Operations are authorized between FHL and Camp Roberts provided those aircraft remain at 1,000 feet AGL and fly over the tank trail connection FHL and Camp Roberts. The tank trail parallels the north shore of the San Antonio Reservoir. Aircraft will avoid over flights of housing/residential areas while conducting sling load operations.

B-21. Tactical Landing Zones

a. In addition to Schoonover Airstrip, there are five other tactical landing zones for helicopters. These landing zones were, at one time, old tactical airstrips used by fixed wing aircraft. None of the landing zones are lit. Commanders responsible for the landing zone shall determine their own traffic patterns, altitudes and reporting procedures within the scope of the guidance established in this Regulation.

b. Tactical Landing Zones (TLZ):

(1) Jackhammer TLZ
(2) Jolon TLZ
(3) Milpitas TLZ
(4) Tule TLZ
(5) El Piojo TLZ

B-22. Close Air Support CAS/Aerial Gunnery

Close air support and aerial gunnery operations are authorized on FHL after coordination with Range Control.

B-23. Parachute Drop Zones

a. Pilots will be alerted to parachute drops through the FHL aviation briefing, NOTAMS, or Tusi Advisory/RANGE CONTROL. All non-participating aircraft will remain clear of parachute operations areas.

b. All parachute operations will be conducted IAW AR 95-1. FHL Range Officer may impose additional instructions and equipment requirements. The Officer must approve use of FHL DZs prior to the conduct of parachute operations. A pathfinder or DZ Officer must be present on the DZ, and have direct communications with FHL Range Control and all participating aircraft.

B-24. Emergency Procedure Training (EPT)

a. Training in emergency procedures will be conducted IAW appropriate Aircrew Training Manuals (ATM), and the guidance set forth in Para 4-7, AR 95-1, 12 November 2008.

b. Authorized day and night EPT designated areas are Tusi AHP and Schoonover Tactical Airstrip.

c. Scheduling of EPT will be accomplished utilizing the FHL Training Support Request (FHL Form DPT-2). Scheduling MUST be accomplished a minimum of 30 days in advance to ensure ARFF support. A detailed training schedule to include number and type of aircraft AND date/time group MUST be submitted with the training area and support request.

d. Commanders of training aircraft will ensure that the EPT location being utilized is safe to conduct EPT operations prior to and during such operations.

e. Provisions of this paragraph do not constitute an authorization to conduct touchdown emergency procedure training if such training is in contravention to other regulations or directives.

B-25. Forward Arming and Refueling Point Operations

a. Forward Arming and Refueling (FARP) operations are authorized at FHL. Units requesting permission to establish and operate FARPs MUST so indicate on the FHL Training Support Request (FHL Form DPT-2). Requests for FARP operations must be submitted no later than 60 days prior to establishment and operation of the FARP. This lead-time will ensure that all environmental, safety, and ARFF support is properly coordinated, approved, and available.

b. Ammunition and Arming Operations and Training. All ammunition and arming operations shall be conducted IAW Section V (Ammunition and Arming Operations and Training), DA PAM 385-64, FM 3-04.111 (Aviation Brigades), and ARTEP 1-111-MTP (Mission Training Plan for the Aviation Brigades).

c. Refueling Procedures

(1) General Guidance. All refueling operations shall be conducted IAW FM 3-04.111, Aviation Brigades and ARTEP 1-111-MTP, Mission Training Plan for the Aviation Brigades.

(2) RAPID (HOT) REFUELING.

a. Rapid (hot) refueling shall be accomplished IAW FM 3-04.111, Aviation Brigades and ARTEP 1-111-MTP, Mission Training Plan for the Aviation Brigades. This information outlines the duties, procedures, sequence of operations, and emergency procedures to be used in rapid (hot) refueling operations at FARPs.

b. Requests for approval of FARP sites and operations will be processed through FHL DPT Scheduling to FHL Environmental Branch, utilizing FHL Form DPT 5 (FHL Environmental Review). The FHL Environmental Branch will assist units in meeting environmental protection requirements without any undue adverse effects on the unit training mission and objectives.

B-26. Overdue Aircraft Procedures

a. When an aircraft filing a LOCAL flight plan (FHL local flying area) is 30 minutes overdue, the following procedures shall be implemented for overdue aircraft flying in support of ground maneuver units:

(1) The ground unit shall immediately notify Tusi Advisory and determine if Tusi Advisory has contact with the aircraft.

(2) If Tusi Advisory has contact with the subject aircraft, Tusi will obtain a revised ETA for the aircraft and relay that information to the supported unit.

(3) If Tusi Advisory does not have contact with the overdue aircraft, Tusi will contact the owning unit and determine if they know the aircraft's location. If the owning unit does not have location information, Tusi Advisory will conduct a thorough ramp search. If the aircraft has not been located upon completion of the ramp, Tusi Advisory will pass this information to the owning unit and the ground maneuver unit.

b. The following procedures will be utilized for overdue aircraft inbound to FHL on a VFR/ IFR flight plan and 30 minutes overdue:

(1) VFR:

a. Tusi Advisory will contact the owning unit and determine the status of the overdue aircraft.

b. Tusi Advisory will contact Oakland FSS and establish the current ETA for the missing aircraft when the aircraft becomes 30 minutes overdue. The FAA will handle the situation from this point.

(2) IFR:

a. Tusi Advisory will contact the owning unit and determine the status of the overdue aircraft.

b. Tusi Advisory will contact the appropriate automated flight service station (AFSS). The FAA will handle the situation from this point.

B-27. Weather Restrictions, Minimal, and Vertical Helicopter Recovery Procedures

a. FHL is designated as mountainous terrain in DOD FLIP AP/2.

b. Due to the absence of radar or instrument approaches at FHL and the distance from FHL to any such existing facilities, only a marginal VHIRP is prescribed. It is imperative that pilots be aware of this fact, plan accordingly, and continuously monitor weather conditions.

c. There are no approved instrument meteorological conditions (IMC) recovery procedures established at FHL.

B-28. Accident and Incident Procedures

a. Accidents/incidents involving injury to personnel or damage to aircraft will be reported to FHL Range Control by the most expedient means possible.

b. The FHL aviation pre-accident plan (stand alone SOP) is a comprehensive procedure for handling accidents/incidents. The unit observing or coming upon an accident will contact FHL Range Control. Personnel will render first aid/medical assistance as required. The accident/incident scene will not be disturbed any more than necessary to rescue the crew (if required) and extinguish any fires if capable to do so.

B-29. Aircraft Lighting

a. Listed below are the aircraft lighting configurations to be utilized while flying within FHL boundaries.

b. Lighting configurations:

(1) Normal lighting (single ship): Anti-collision light(s) ON, position lights STEADY BRIGHT. STEADY DIM position lights will be permitted during the last 100 feet of an approach at the discretion of the PIC. Lights will be returned to STEADY BRIGHT immediately after take-off.

(2) Normal lighting (multi-ship): Trail aircraft will have anti -collision light(s) STEADY BRIGHT. All other aircraft may have anti-collision light(s) OFF and position lights STEADY BRIGHT.

(3) All NT/NVD aircraft transitioning into or out of the FHLFA will leave navigation lights on STEADY BRIGHT and turn anti-collision light(s) ON.

(4) All aircraft approaching, departing, or operating at Tusi AHP or within the Cantonment area will be in a normal lighting configuration.

(5) All NT/NVD training outside of FHL TAs of the FHL FA will be conducted with navigation lights on STEADY BRIGHT and anti-collision lights ON unless otherwise approved under current directives.

B-30. High Wind and Storm Procedures

a. Tie down kits required by TM 1-1520-23-1 must be provided by the training unit. Mooring hard points for 16 aircraft are available at Tusi AHP, but mooring hardware is limited. There are no hard points at Schoonover.

b. The aviation unit commander may choose to moor the unit aircraft at FHL or fly them to a local airport out of the severe weather track.

c. Requests for Support. Commanders or PICs of single aircraft shall coordinate through RANGE CONTROL for additional ground vehicles that they may need in blocking aircraft to protect them from wind.

B-31. Aircraft Rescue/Fire Fighting

a. The FHL Fire Department is a 24-hour a day, 365 days a year operation, and has the capability to extinguish aircraft fires using Aqueous Film-Forming Foam (AFFF) dispensed by a P-19 crash truck. The response time from the fire department to Tusi AHP is 3-5 minutes from time of call to ARFF units arriving at Tusi. The response time to Schoonover is 5-6 minutes.

b. All personnel participating in ARFF activities will comply with AR 420-90 and accepted NFPA standards.

c. Non-emergency ARFF support will be accomplished through use of FHL Form DPT-2 (Training Area and Support Request) and FHL Form DPT-30 (Aviation Prior Planning Request).

d. Emergency ARFF support will be requested through Tusi Advisory /FHL Range Control.

B-32. Flight Operations

a. Tusi Flight Operations provides the following services:

(1) Operation of Tusi AHP

(2) Flight Planning

(3) Weather Information

(4) Flight Operations Planning Area

(5) Contact with Oakland FSS

b. Training units will:

(1) Ensure that all flight plans have been appropriately filed.

(2) Provide duty and non-duty telephone numbers of their commander, operations officer, and operations NCOIC.

(3) Ensure all aviators flying at FHL receive aviation in brief prior to operating in FHL training areas/airspace.

(4) Assist in policing helipads, runways, taxiways, and adjacent buildings.

(5) Wild Fire Reporting. Although the prime fire season at FHL is from 1 May - 31 October, fires can and do occur throughout the year. These fires are often unpredictable, capable of quickly changing directions of travel and moving rapidly through fuel sources. Any aviator flying in the vicinity of FHL and spotting an unattended fire will contact Tusi Advisory/Range Control and provide the following information:

a. Six-digit grid coordinate

b. Direction of travel

c. Type of terrain (wooded, grassland, open area, steep slope, etc.)

d. Buildings or property in danger
e. Estimated size

B-33. Reference Library

a. An aviation reference library is located in the flight operations planning area of Range Control. The library includes pertinent FAA, DOD, DA, and joint service publications, to include directives, regulations, field manuals, and planning documents to include FLIPS and area charts.

b. These publications are for local use only, and are not to be removed from the aviation operations planning area without written consent from the Range Control Operations Officer (Bldg S-320C).

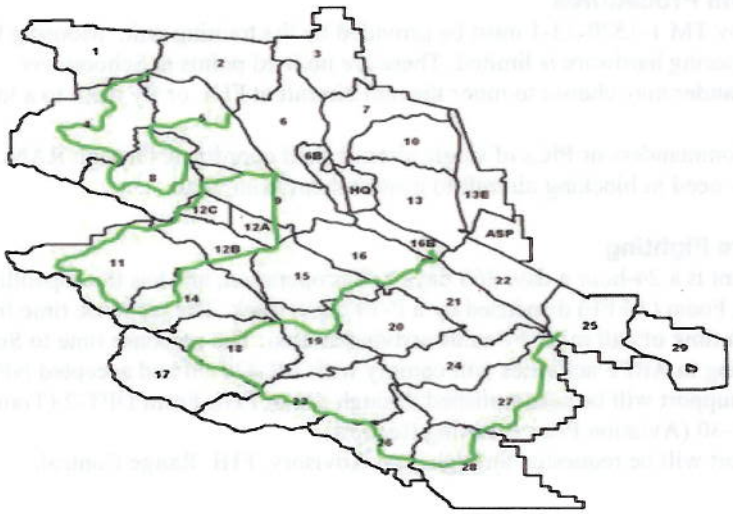
B-34. Solar/Lunar Light Data Tables

Monthly tables with solar and lunar light data are available at the Range Control Firing Desk.

B-35. Terrain/Nap of the Earth (NOE) Flights

a. Terrain/NOE Flight Operations. FHL has established terrain/NOE flight paths. A diagram of these paths is shown below (Figure B-35.1: FHL Nap of the Earth (NOE) Routes), and is posted in the aviation planning area of FHL Range Control.

Figure B-35.1: FHL Nap of the Earth (NOE) Routes



b. Use of these routes must be requested on FHL Training Support Request (FHL Form DPT-2), and FHL Aviation Prior Planning Request (PPR) form (FHL Form DPT-30).

c. Pilots/air crews will adhere to the following when conducting terrain/NOE flight operations:

(1) NOE flights will not be conducted when wind conditions do not allow adequate directional control margins according to the Aircraft Operations Manual.

(2) Do not cross NOE lanes at less than 500 feet AGL, or enter NOE lanes without first contacting Tusi Advisory.

(3) Conduct a thorough map reconnaissance, and update maps with the hazards map posted in the FHL aviation operations planning, FHL Range Control, area prior to any NOE flight.

(4) Pilots will conduct a non-NOE altitude flight of the selected NOE lane(s) prior to conducting actual terrain/NOE flight operations. All existing flight hazards (wires, towers, antennas, etc.) will be annotated on the air crew maps. The hazards map is posted in the flight operations planning area at Range Control. All unmarked hazards will be reported to FHL Range Control personnel.

(5) Pilots will avoid flying closer than 200 meters from buildings, livestock, and non-military vehicles.

d. Aircraft position reports are required for:

(1) Arrival at the Initial Point (IP)

(2) Arrival at the Release Point (RP)

(3) When departing designated route

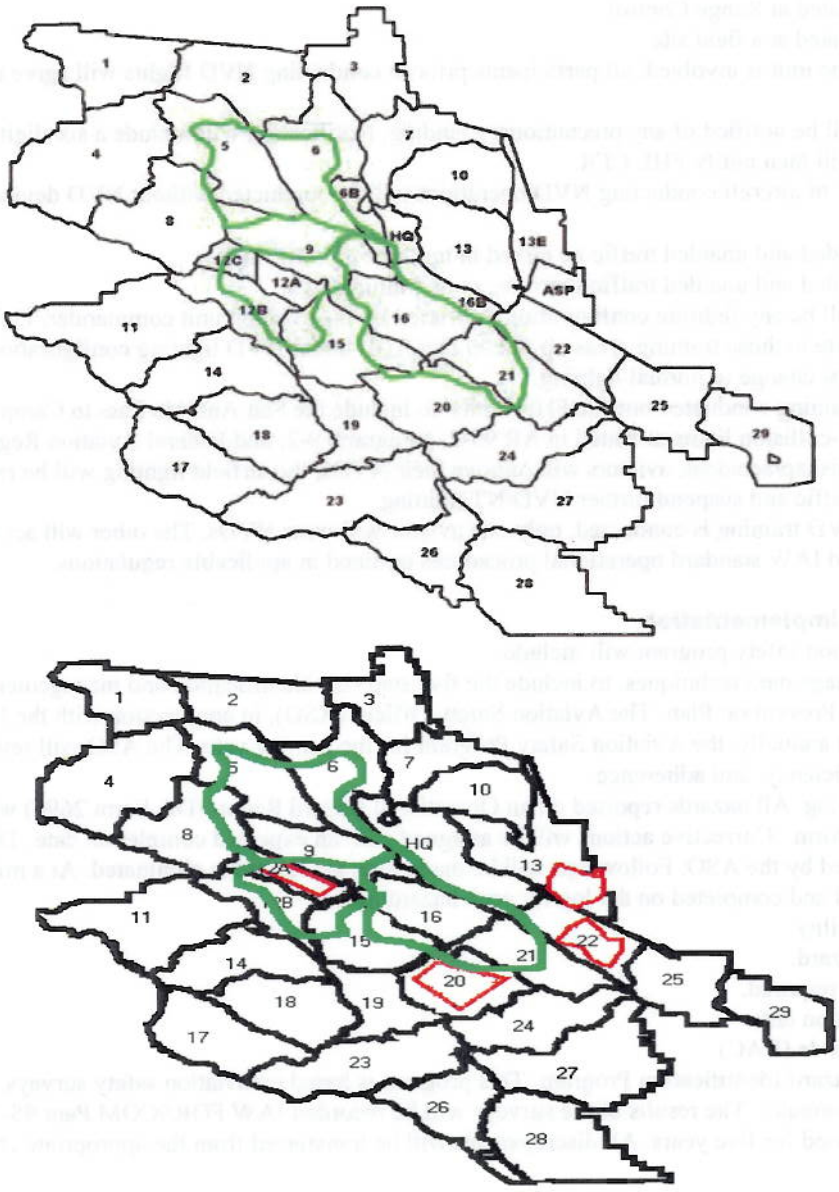
(4) When unanticipated hazards are encountered

(5) When required by FHL DPT

B-36. Night Vision Device (NVD) Flights

a. Night Vision Device (NVD) Flight Operations. FHL has established NVD flight paths. Diagrams of these paths can be found in FHL Night Vision Device (NVD) Routes (Figure B-36.1) and posted in the aviation planning area of FHL Range Control. NVD (lights OFF) operations will be conducted only within the confines of R-2513 when the restricted area is active.

Figure B-36.1: FHL Night Vision Device (NVD) Routes



b. Use of these routes must be requested on FHL Training Support Request (FHL Form DPT-2), or FHL Aviation Prior Planning Request (PPR) (FHL Form DPT-30). Time of use must be as specific as possible. Blanket times of proposed training will not be used (i.e., midnight to sunrise).

c. Because of the difficulties involved in maintaining NVD currency, requests for NVD operations will take priority.

d. Single aircraft night/night vision device training within FHL boundaries is prohibited without flight following. Four training aircraft will be the maximum for closed traffic operations.

e. Pilots/air crews will adhere to the following when conducting NVD flight operations:

(1) Conduct a thorough map reconnaissance, and update maps with the hazards map posted in the FHL aviation operations planning, Range Control, area prior to NVD flights.

(2) Pilots will conduct a non-NVD flight of the selected NVD lane(s) prior to conducting actual NVD flight operations. All existing flight hazards (wires, towers, antennas, etc.) will be annotated on the air crew maps. The hazards map is posted in the flight operations planning area at Range Control. All unmarked hazards will be reported to FHL Range Control personnel.

(3) Operations planning area at Range Control. All unmarked hazards will be reported to FHL Range Control personnel. Safety briefings will be conducted prior to flight. All flight crews will be present at the safety briefing. All units conducting NVD training in conjunction/concurrently with other NVD units will brief together.

(4) All NVD flights conducted at FHL will be flight followed. Flight following may be accomplished by any of the following methods:

a. Command and control aircraft (at altitude)

b. Air traffic control (ATC) personnel

c. Unit personnel located at Range Control

d. Unit personnel located at a field site

f. When more than one unit is involved, all participants prior to conducting NVD flights will agree upon the flight following method.

(1) Tusi Advisory will be notified of any precautionary landing. Notification will include a six-digit grid coordinate of the landing location. Tusi will then notify FHL CFR.

(2) "HOT Refueling" of aircraft conducting NVD operations will be conducted without NVD devices and aircraft navigation lights ON.

(3) At no time will aided and unaided traffic be mixed in multiple aircraft flights.

(4) At no time will aided and unaided traffic share the same training area.

(5) NVD lighting shall be any lighting configuration as briefed by the aviation unit commander. Units having land rights to training areas may operate in those training areas up to 200 feet AGL under NVD lighting configuration. Aircraft climbing above 200 feet AGL must change to normal lighting.

(6) All night/NVD training conducted outside FHL limits, to include the San Antonio Pass to Camp Roberts, shall operate with navigation and anti-collision lights as stated in AR 95-2, paragraph 9-2, and Federal Aviation Regulation (FAR) 91.73.

g. In the event of a mishap/accident, aviators will remove their NVDs, the airfield lighting will be returned to normal, and all aircraft will depart traffic and suspend further NVD/NT training.

h. When day filter NVD training is conducted, only one aviator will wear NVDs. The other will act as the safety observer. Flights will be conducted IAW standard operational procedures outlined in applicable regulations.

B-37. Structure and Implementation

At a minimum, the aviation safety program will include:

a. Current safety management techniques, to include the five step risk identification and management process.

b. Aviation Accident Prevention Plan. The Aviation Safety Officer (ASO), in conjunction with the Installation Commander, will develop and publish annually, the Aviation Safety Program for the coming year. The ASO will review the plan quarterly to ensure effectiveness, efficiency, and adherence.

c. Hazard Inventory Log. All hazards reported on an Operational Hazard Report (DA Form 2696) will be annotated on a Hazards Inventory Log form. Corrective actions will be assigned with an expected completion date. This master log will be maintained and monitored by the ASO. Follow-ups will be made until the hazard is eliminated. At a minimum, the following sections will be included and completed on the log for each hazard noted:

(1) Area of responsibility.

(2) Description of hazard.

(3) Corrective action required.

(4) Expected completion date.

(5) Risk assessment code (RAC)

d. Comprehensive Hazard Identification Program. This program is based on aviation safety surveys, which will be conducted at least semiannually. The results of the surveys will be recorded IAW FORSCOM Pam 95-3. This information will be filed and maintained for five years. All discrepancies will be transferred from the appropriate checklist to the Master Hazard Inventory Log.

B-38. Operational Hazard Reports (OHR)

The Operational Hazard Report (DA Form 2696) provides an excellent tool for all personnel to inform the ASO of suspected hazards.

a. Operational Hazard Report forms are available in the FHL Range Control aviation operations planning area, or from the Operations Officer (Bldg. S-320C).

b. Individuals submitting the OHR may do so under conditions of anonymity (Block #2, DA Form 2696).

c. OHRs will be processed within four working days. If necessary, the report will be forwarded to the appropriate command level for action.

d. All identified hazards will be entered on the Master Hazard Log.

e. Personnel will receive an annual briefing of the OHR program.

B-39. Safety Bulletin Boards

The FHL ASO will maintain a safety bulletin board in the aviation flight operations planning area of Range Control. It will display current safety awareness information to include:

a. Commander's safety policy.

b. OHR Forms.

c. Safety posters.

d. Commander's Aviation Accident Prevention Plan.

B-40. Pre-Accident Plan

a. The plan outlines specific duties that organizations and individual personnel will perform.

b. The plan will be tested monthly. This test will normally involve calling specific telephone numbers to validate their currency.

c. The plan will be rehearsed monthly. The rehearsal will normally involve dispatching CFR assets to a simulated aircraft incident/accident site. An after action review will be conducted, and a written report will be filed.

B-41. Foreign Object Damage (FOD)

The FHL Aviation NCO is the FOD Control NCO, and has the following duties:

a. Establish and enforce a FOD control program. Unit mission and local conditions will be considered.

b. Assist the Commander in executing the program.

c. Submit FOD reports to the Installation Commander and higher headquarters as required.

d. At a minimum of once a week, monitor the execution of FOD control procedures.

e. Investigate known and suspected FOD damage in coordination with the Aviation Safety Officer.

f. Maintain surveillance for unsafe conditions and take corrective actions when required. Notify appropriate personnel if conditions cannot be corrected.

g. Ensure that incoming personnel are briefed concerning their responsibilities for FOD control.

B-42. Physical Security

Aviation units have the final security responsibility for all organic aircraft, equipment, and unit personnel located at Tusi AHP, Schoonover Air Strip, and the FHL Medical Aid Station Pad.

B-43. Search and Rescue (SAR) Operations

a. This chapter establishes policies, procedures, and responsibilities for providing FHL resources and assistance to civil authorities in support of search and rescue (SAR) operation.

b. Definitions

(1) Search and Rescue (SAR). The use of available resources to assist persons and property in potential or actual distress.

(2) SAR Coordinator. The official (or agency) responsible for the SAR organization within a given area and for the coordination of SAR operations within that area.

(3) SAR Officer. The single point of contact for all SAR missions. He/she will have primary responsibility for both ground and air assets (if on station) tasked from FHL and provide overall coordination between the SAR Coordinator and FHL-based elements for conduct of the SAR mission.

(4) SAR OIC (Ground/Air). The individual responsible for the actual conduct of the SAR mission by his unit in the search area. He will be under the operational control of the SAF Officer.

c. General

(1) SAR is a lifesaving service provided through the combined efforts of the federal agency signatory to the National SAR Plan, and the agencies responsible for SAR within each state. Operational resources are provided by the US Coast Guard, DOD components, the Civil Air Patrol, and the US Coast Guard Auxiliary, state, county, and local law enforcement and other public safety agencies, and private volunteer organizations. Services include search for missing aircraft, survival aid, rescue, and emergency medical help for the occupants after an accident site is located.

(2) SAR operations are conducted at Installation level in support of its own operations or as cooperative efforts by organizations having the necessary SAR capabilities in response to civilian emergencies.

B-44. Use of DA Facilities, Assets, and Resources

a. DA facilities can be used under the NSP for civil SAR, provided it does not interfere with military missions.

(1) FORSCOM will serve as coordinator for all Army SAR support of the National SAR Plan within CONUS. Wartime SAR procedures and responsibilities are contained in AR 525-90.

(2) The Department of the Air Force is the designated SAR Coordinator for the Inland Area. The Rescue Coordination Center at Langley AFB, VA, coordinates all inland SAR missions. Prior to engaging in any SAR mission, with the exception of those listed in (3) below, a SAR mission number must be provided by the RCC at Langley AFB, through FORSCOM Operation Center to the FHL SAR Officer. Receipt of the SAR mission number by the FHL SAR Officer is required prior to mission validation.

b. SAR missions that may be performed by Army aircraft in support of SAR operations (to include those in support of disaster relief) include, but are not limited, to the following:

(1) Aerial drop of medicine, food, emergency supplies, and livestock feed
(2) Aero medical evacuation of the sick and injured
(3) Transport and guidance for surface rescue parties
(4) Message drop and pick-up, courier service, and communications
(5) Wire-laying for emergency communications
(6) Illumination for night operations
(7) Photographic and reconnaissance missions
(8) Insect control
(9) Provide warning or information on:
i. Areas to be evacuated
ii. Transportation facilities
iii. Available evacuation routes
iv. Measures to be taken to protect property and livestock.

c. FORSCOM Operations Center is the sole approving authority for all SAR missions with the exception of:

(1) Those conducted locally by Commanders in support of their own operations.
(2) Those conducted in response to known life or death situations.
(3) When an in-flight aircraft is requested by FAA to divert to assist in locating distressed/crashed aircraft.
(4) Whenever a SAR mission is conducted in any situation including (1), (2), and (3) above, FORSCOM will be informed. Notification will be accomplished prior to execution of the mission when possible.

B-45. Aviation Specific Responsibilities

a. FHL DPT:

(1) Provide Directorate assets to assist with SAR operations as required.

(2) Provide an Installation SAR Coordinator responsible for SAR operations within the boundaries of FHL and for the coordination of such SAR operations.

b. The FHL SAR Coordinator shall:

(1) Provide recommendations for the activation of the Installation Emergency Operations Center (EOC).
(2) Ensure that the established procedures concerning overdue aircraft are implemented.
(3) In the case of downed aircraft, the FHL SAR Coordinator will implement the FHL Aviation Pre-Accident Plan.
(4) Notify INSTALLATION Safety Officer of overdue/downed aircraft incidents.

c. DPW, DOL, DES, SAFETY Office, PAO, shall provide all assistance as recommended to and approved by the Installation Commander.

d. If operational, the FHL Medical Aid Station (MAS) shall provide emergency medical assistance as required. Casualties from downed aircraft or other incidents requiring immediate medical care will be transported to surrounding civilian/DOD hospitals.

B-46. Additional Information

Additional information concerning the conduct of SAR/EOC operations at FHL can be found in the following publications:

a. FHL Aviation Pre-Accident Plan
b. FHL Emergency/Disaster Response Plan (Force Protection)
c. National Search and Rescue Manual (FM 20-150)
d. Aeronautical Information Manual (February 26, 1998)
e. FM 1-300, Appendix C

Annex C
Airborne Operations

C-1. Purpose

The purpose of this chapter is to establish policy for the conduct of, and the parameters and requirements for, airborne operations at FHL.

C-2. General

There are various Drop Zones (DZs) suitable for airborne personnel drops at FHL when the using agency is utilizing US Air Force platforms. Airborne operations using non Air Force certified platforms may use any area that is tactically suitable. The proposed DZ locations will be drawn on an overlay and approved by Range Control NLT 24 hours before drop time. A US Army, school-trained pathfinder, currently on jump status, will be on the ground and will be responsible for the design and operation of the DZ. The DZ staff is required to maintain radio communication with Range Control. All other unit safety SOPs are to be in effect, as the DZ OIC deems necessary.

C-3. Policies and Procedures

a. All personnel on the drop zone will wear Kevlar helmets. Each airborne operation will have a Drop Zone Safety Officer (DZSO). The DZSO will contact Range Control a minimum of Two hours prior to the scheduled airborne or airdrop operations and maintain communications throughout the operation. The DZSO will be responsible for the police of the DZ, and time of clearance will be coordinated with Range Control prior to the conduct of each operation. Units conducting Computed Air Release Point (CARP) drops will coordinate with a USAF Combat Control Team (CCT). Using units will provide the following information to Range Control in the Training Support Request:

(1) Name, rank, and unit of Drop Zone Safety Officer
(2) Drop zone, type aircraft, number of passes, type of drops (equipment or personnel), and number of jumpers
(3) Time of first and last drop or air landing
(4) Time that the field landing strip will be used as required for the airborne operation

b. The unit conducting the airborne operations will provide a drop zone advance party consisting of the following personnel:

(1) DZSO in the grade of E6 or above who is currently on jump status and Jump Master qualified
(2) Assistant DZSO in the grade of E5 or above who is currently on jump status and Jump Master qualified
(3) Qualified medics (MOS 91B/C/D)
(4) Pathfinder (Army only)
(5) Malfunction NCO in the grade of E5 or above and parachute rigger
(6) Road guards if required

c. FM and landline communications with Range Control are required of the CCT and DZSO during all phases of airborne operations. The CCT will notify Range Control when the aircraft are 30 minutes from the drop zone and confirm the number and types of aircraft supporting the operations. Range Control will ensure cessation of all high trajectory firing along the aircraft line of flight.

d. Vehicles other than those required for control purposes will not be permitted on the drop zone immediately preceding or during a parachute jump. There will be no more than five vehicles on the DZ during operations. All vehicles will be running and marked with safety lights.

e. Only after the landing of all paratroopers will heavy drop recovery vehicles and ambulances or designated vehicles be permitted on the drop zone.

f. Road Guards:

(1) Road guards will be posted IAW Range Control requirements to control all traffic within the DZ during airborne operations.
(2) The DZSO must have the ability to communicate with the road guards on internal operating frequencies.
(3) All traffic must be stopped ten (10) minutes out from time-on-target (TOT) and released when the jumpmaster has landed or when the DZSO directs.

g. In the event of a parachute malfunction, the DZSO will immediately cease the operation and notify Range Control. The malfunction NCO will inspect the parachutes and jumpers, provide first aid if needed, and attempt to determine the cause of the malfunction.

h. The DZSO is responsible for the police of the drop zone and removal of all air delivered items, e.g., platforms, bundles or webbing, trash, etc., before closing the drop zone.

i. Upon completion of the drop, the DZSO will log out the drop zone with Range Control and provide any information requested by Range Control before breaking communications.

C-4. Airborne Operations During Limited Visibility

a. Airborne operations conducted during periods of limited visibility will require all DZ markings and design in accordance with FM 3-21.38 (Pathfinder Operations). The controlling agent (CCT or pathfinder) will verify all lighting, drift calculations, and communications with the drop platform(s) as well as Range Control before drop time.

b. The cutting of power from lines on all drop zones within the cantonment area must be approved by FHL Range Control. Coordination with FHL DPW is required. Only the supplier (Pacific Gas and Electric) can cut power from commercially-owned/operated lines. Pathfinders and CCT personnel are encouraged to mark these hazards with all formulas for drift and release point.

c. The DZSO will submit an overlay and sequence of events to FHL Range Control not later than 24 hours prior to drop time for any Army or Air Force platform drops.

C-5. HALO Operations

HALO operations are authorized within FHL airspace. Units must provide the requested flight level via a FHL PPR. FHL Range Control will coordinate with Oakland Center to raise the normal daily operating flight level above 8,000' MSL. REMINDER: The FHL PPR is not a Training Support Request document. It is used to coordinate airspace requirements.

C-6. Drop Zone/Landing Zone Surveys (DZ/LZ)

Surveys of some of FHL DZ AND LZ's may be obtained from HQ AMC by Calling DSN 576-2899 or CML 618-2566-2899 (FAX-ON-DEMAND) and ordering Document Number (CONUS WESTERN REGION 1003) After receiving the form, order the information needed by using the DOC# corresponding to the DZ/LZ of interest.

C-7. Drop Zones

Drop Zone	TA	Grid Reference	Capability
Alder East	15	FE 5653 7867	All
Alder West	15	FE 5653 7867	All
Bayonet East	22	FE 6724 7831	All
Bayonet West	22	FE 67247831	All but HALO
Deer Creek	29	FE 7417 7355	Day, C, P, S
Dutra	1	FE 4744 9340	Day, CDS
Garrell	1	FE 4465 9467	Day, C, S
Hammer	16B	FE 6000 8272	All
Horse	24	FE 6466 7141	Day, All
Italian Flats	26	FE 6090 6918	Day, C
Jackhammer	16B	FE 6012 8252	C, P, N
Jolon	13E	FE 6500 8693	Day, P
Keitha	20	FE 5972 7646	All
Linus	15	FE 5720 8040	Day, P
Lone Ranger	12A	FE 5371 8300	All
Marti	25	FE 6960 7776	Day, P
McConnell	2	FE 5276 9158	Day, C, S
Miguel	15	FE 5614 7866	All
Oak Flat	27	FE 6292 6977	Day, C
Palmer	12B	FE 5256 8086	All
Patricia east	15	FE 5572 7914	All
Patricia West	15	FE 5565 7838	All
Patricia Circle	15	FE 5525 7875	All
Sam Jones	27	FE 6600 7148	All
San Antonio	29	FE 7635 7340	H2O
Schoonover	16B	FE 6232 8154	All but HE
Schoonoverville	16B	FE 6256 8161	C, P, N
Seco	24	FE 6496 7281	All
Sutterfield	24	FE 6144 7154	Day, C
Stoney Valley	12A	FE 5442 8246	All
Tamara	13W	FE 6310 8268	All
Tonto	12A	FE 5392 8275	All
WildCat	12B	FE 5300 8082	Day, All but HALO

Capability Code Key	
C	CDA
HE	Heavy Equipment
P	Personnel
N	Night
H2O	Water DZ
Cir	Circular DZ
All	DZ is capable for all types of drops

Annex D
Laser Operations

D-1. Purpose
To establish safety guidelines for unit and personnel (civilian and military) using lasers in FHL training areas.

D-2. Responsibilities
a. Range Control will have overall responsibility for safety and will:
(1) Monitor the laser safety program and where inadequacies require command attention for resolution, advise the commander.
(2) Remain knowledgeable regarding laser operations within FHL training areas.
(3) Ensure that user unit laser safety SOPs are reviewed and approved by Range Control.
b. Range Control will ensure that all units receive the Laser Safety Briefing, when there is laser activity in FHL training areas.
c. Range Control will:
(1) Review and approve user unit laser safety SOPs and maintain copies of each
(2) Ensure that laser accidents are investigated and reported in accordance with AR 385-40
d. User unit commander will:
(1) Establish written laser SOPs which include safety
(2) Enforce laser SOPs, safety rules and precautions
(3) Ensure that personnel operating lasers and supporting equipment receive adequate instructions and training.
(4) Ensure laser operation personnel have received required medical surveillance exams in accordance with AR 40-46 and Technical Bulletin Medical (TB MED) 524.
(5) Report to Range Control any laser accidents, unusual incidents or personnel injury
(6) Ensure the emplacement of temporary or permanent signs where required to warn personnel that laser operations are taking place and that a hazard exists.
e. Laser operating personnel will:
(1) Know and adhere to SOPs, safety rules and special instructions
(2) Report to their supervisor any known or suspected laser accident or injury

D-3. General
a. Laser safety is a command responsibility. Commanders are responsible for ensuring their subordinates understand all of the potential hazards of training with laser systems. The laser system will be treated like a direct fire line-of-sight weapon, such as a rifle or machine gun. The same hazard control precautions will be taken in order to ensure a safe operating environment.
b. The likelihood of unintentional intra-beam viewing is extremely small in most training situations and if safety precautions are followed, the potential for accidents can be minimized
c. The major hazard involved with laser activities is eye damage.
(1) Direct beam: Hazardous exposure conditions exist where personnel may be within the beam either at the target, between the target and the laser, or in some situations beyond the target. The beam path immediately in front of the laser is particularly hazardous and safety practices applicable to small caliber, direct fire weapons must be followed.
(2) There are two types of reflected beams. Diffuse reflections from laser systems are normally not hazardous, unless a white target is placed within ten meters of the laser. Reflections from glossy leaves, raindrops and other natural target material are not hazardous except immediately in front of the laser. Specular reflections can present hazards similar to direct-beam viewing. Windows in build-up areas, glass surface on combat vehicles and still ponds can present problems.

D-4. Explanation of Terms

a. Laser. Acronym for Light Amplification by Stimulated Emission of Radiation. Includes any device that can be made to produce or amplify electromagnetic radiation in the X-ray, ultraviolet, visible, and infrared or other portions of the spectrum by the process of controlled stimulated emission of photons.

b. Types of Lasers. Laser classification is determined by laser output parameters. Note: IAW U.S. Law, all lasers have a fixed safety label that identifies the laser's specific class. Contact the Radiation Safety Officer at the Command Safety Office immediately if you receive a laser without this warning label.

(1) Class 1 Laser. Emits levels of laser radiation which are not hazardous under any operation or viewing condition.

(2) Class 2 Laser. Visible laser beam that is not considered hazardous for momentary exposure occurring in an unintentional viewing situation. These lasers are marked with a yellow caution label that warns against intentional staring into the direct laser beam.

(3) Note: Current safety policy as established by the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) is that Class 2 lasers and higher will not be employed during force-on-force training.

(4) Class 3a Laser. Visible laser beam that is not considered hazardous for momentary exposure occurring in an unintentional viewing situation, but which is potentially hazardous if the direct beam is viewed with magnifying optics such as binoculars. These lasers are marked with a yellow caution label that warns viewing the direct beam through magnifying optics.

(5) Class 3b Laser. These lasers include both continuous and pulsed ultraviolet, visible, and infrared lasers which are potentially hazardous if the unprotected eye views the direct beam or specularly reflected beam. These lasers are marked with a red danger label warning against direct eye exposure to the laser beam. Control measures must prevent inadvertent exposures of personnel to the direct beam or specular reflections.

(6) Class 4 Laser. These lasers are high-powered laser systems which are hazardous to the eye if the direct beam or specularly reflected beam is viewed. Additionally, these lasers may produce hazardous diffuse reflections and/or constitute a skin or fire hazard. Control measures for outdoor use of such lasers include exceptionally strict control over large distances to preclude inadvertent exposure of personnel.

c. Intrabeam Viewing: Looking directly into a collimated laser beam, whether from the laser or from a specular reflection.

d. Laser Range Finder (LRF): A range finder employing a laser device to emit a short-pulse laser beam that is aimed at the target. The range is determined automatically by electronically measuring the length of time that it takes for the light beam to ravel from the LRF to the target, be reflected from the target and return to the range finder, while knowing the constant speed at which light travels. The beam does not visibly affect the target.

e. Safety Eyewear: Eyewear that allows the user to be exposed to either the direct or reflected laser beam without eye injury.

f. Specular: Mirror-like (i.e., windows, vision blocks, searchlight cover glass, plastic sheets, mirror or chrome).

g. Laser Range Safety Officer (LRSO): A designated officer or NCO of the firing unit who is familiar with laser hazards and the Range Control procedures required for laser operations.

h. Nominal Ocular Hazard Distance (NOHD): The NOHD for direct intrabeam viewing is one on which a person can be exposed repeatedly without injury, provided that he does on look at the laser with unfiltered optical devices. For example a 10 km NOHD would be increase to 80 km for an individual looking back at the laser from within the beam with 13 power optics. In almost all cases, it is not possible to control such large amounts of real estate. The solution to this problem is to use a backstop to ensure that a line of sight does not exist between the laser device and potential observers behind the target, Refer to AR 385-63 paragraph 19-10, Table 19-2, page 19-5 for NOHD for training lasers.

i. Backstops: Backstops are opaque structures or terrain in the controlled areas, such as dense tree line, a windowless building, or a hill which would completely obstruct the view beyond it and which would, therefore, completely terminate a laser device. The hazard distance must be controlled. The terrain profile from the laser devices field of view plays a very important role since the laser presents only a line of sight hazard. The optimal use of a natural backstop is the obvious key to minimizing laser range control problems.

j. Infrared Pointer. A low power laser device operating in the near infrared light spectrum that is visible with light amplifying night vision devices. Also called IR pointer.

D-5. Personal Protective Equipment

This equipment consists of appropriate safety eyewear for individuals and filters for optical instruments such as binoculars, telescopes and periscopes.

a. All eyewear filters will be marked with their optical density (i.e. a measure of the attenuation afforded) at the specific wavelength for which they are to be used.

b. Selection will be in accordance with guidance provided in Chapter 19, AR 385-63, TB MED 524 for the particular laser used.

D-6. Range Usage

a. Practice in lasing (i.e. use of only the laser range finder) in training areas may be conducted only in those areas which meet or exceed all safety requirements and have been approved for such use by the Officer.

b. A survey of the proposed lasing and target area will be accomplished to establish laser elevation and azimuth limits. An adequate safety margin on either side of and above the beam extending out of a physical backstop is required by Chapter 19, AR 385-63.

c. Warning signs and barricades used to prevent personnel from entering firing areas also will be used in conjunction with laser firing. Additionally, notice must be provided at the entrance to the range that laser operations are being conducted.

d. Unprotected personal will not be permitted on the established impact area as shown in the surface danger area diagram for the range.

e. The laser range finder will not be used in two-sided tactical exercises without specific approval of the Officer. In most cases, such exercises are not possible.

f. Flat specular objects having vertical or near vertical surface will be removed from tank LRF target areas between 0 and 1,000 meters to prevent eye damage from a reflected laser beam. On moving tank ranges, objects must be cleared 1000 meters from the firing point farthest down range. Generally, those surfaces in which an image can be seen must be removed. The object may be covered or painted with lusterless paint if it cannot be removed. The laser range finder, however, should not be intentionally fired at flat glass surfaces at any range. Flat specular objects in the sense of the provisions are:

(1) Flat-mirrors

(2) Chrome-placed metal

(3) Panes of glass

g. The target material may be of any surface that does not meet the description of (f) above. Cloth, cardboard, wood and lusterless metal of any size and color are acceptable as targets for laser firing.

h. Force-on-force training with laser systems (to include infrared pointers) involving personnel without laser protective eyewear is limited to Class 1 systems only. The Command Safety Office will evaluate lasers of a higher class that have safety features that permit Class 1 type performance on a case-by-case basis for force-on-force use.

i. All lasers may be used for live fire training and for other training when there are no personnel in the beam path providing safety requirements established in AR/DA Pam 385-63 are met.

j. For laser operations with Class 2, 3a, and 3b systems:

(1) Laser devices will only be used on ranges approved for such use. Additionally, operators and supervisors of laser equipment will be thoroughly familiar with applicable references identified in paragraph H-1 above.

(2) Laser safety certification is required for all personnel who operate or supervise the operation of Class 3a and 3b laser systems.

(3) Intrabeam viewing of either direct or reflected beams from a flat mirror-like surface (specular reflection) from lasers can expose the unprotected eye to a potential hazard and must be prevented.

(4) Personnel will not deliberately view direct laser radiation with optical instruments within the NOHDO (nominal optical hazard for direct observation). The resulting amplification of laser energy significantly increases the probability of eye injury.

(5) Night vision devices (NVDs) will not be used for laser eye protection. These devices are not "cover-all" goggles. Laser energy may enter the eye from reflections or from around the tubes. These devices can be bloomed (white out), damaged, or destroyed from exposure to laser radiation.

(6) Extreme caution will be taken when using a target-designating laser in conjunction with ordnance delivery aircraft (fixed- and rotary-wing). The potential exists for the on-board laser seeker to lock onto the designator or its radiated energy (i.e., beam or reflected beam) instead of the target. The following procedures will be followed to reduce this risk:

a. The pilot of the attacking aircraft will have positive knowledge of the location of the designator and the target area before releasing munitions.

b. Approach paths will be designated and briefed to both the designating/Forward Air Controller (FAC) personnel and the aircrews prior to conducting the mission. Aircraft approach paths will be planned to preclude crossing laser designator beams with the laser seeker. The laser seeker should intersect the designator beam well forward of the laser firing point, angling toward the target.

c. Only mission-essential personnel will be within the area of effects for the weapon employed from the designator and/or direct or reflected beam of the laser designator during operations.

d. Munitions will not be launched or released on a heading toward the laser designator. See applicable technical manuals for recommended employment procedures.

e. A Laser Safety Officer (LSO) will be designated for all operations involving the use of Class 2 and above lasers. The LSO must be staff sergeant (E-6) or above and laser safety certified.

D-7. Laser Incidents

a. Personnel suspected of experiencing potentially damaging eye exposure from laser radiation will be evacuated immediately to the nearest medical facility and undergo an eye examination. Pertinent medical guidance for such emergencies is available from the Walter Reed Army Institute of Research Detachment at Brooks AFB, DSN: 240-4620 or commercial (210) 536-4620. The expeditious examination and treatment of laser eye injuries is critical in minimizing loss of visual acuity.

b. Report laser overexposure incidents immediately to the Command Safety Office. Subsequent reporting will be IAW AR 385-11, AR 40-5, AR 385-40, and TB Med 524.

D-8. LSO Responsibilities

a. Before operating a Class 2 or higher laser, verify the following:

(1) The observation post or training area from which laser operations will be conducted is approved for laser use. If not, coordinate with the Installation's Range Control to develop the observation post or training area as a nonstandard laser observation post or training area.

(2) Ensure that all laser operations are conducted IAW the Installation Range Regulation.

(3) Ensure that the laser beam terminates safely.

(4) Ensure that required warning signs and/or barricades are established during active laser operations IAW the Installation Range Regulation.

b. During laser operations, the LSO will:

(1) Give a laser safety briefing to all affected personnel. At a minimum, this briefing will cover associated hazards with the laser(s) employed, range limits for laser employment, and safety measures in place to prevent eye damage. This briefing may be delegated to the unit chain of command.

(2) Verify that laser operators have been trained on the equipment they will be operating.

(3) Ensure laser operators do not lase specular surfaces (e.g., mirrors, vehicle windows, standing water, etc.).

(4) Enforce prescribed vertical and horizontal buffer zones (two mils for a stable platform and five mils for an unstable platform).

(5) Ensure optical instruments not specifically treated with a laser safety coating are not used to observe targets being lased (M22 binoculars and other optical devices with protective laser coatings may be used).

(6) Verify that all laser exit ports are covered when the laser is not in use.

(7) Immediately report all laser-related incidents and injuries through the chain of command and Range Control.

D-9. Laser Operating Procedures

a. Range Control Procedures: A unit desiring to operate any laser device must:

(1) Submit a memorandum request to Range Control designating the laser location, time of operation and target area location IAW regulations.

(2) Have the current Training Bulletin and a unit Laser Safety SOP on hand at the training facility during training.

(3) Laser ranges must maintain continuous radio communication with Range Control.

(4) Warning signs must be used to prevent personnel from entering a laser firing area. Free standing laser warning signs will be picked up from Range Control and placed as directed.

b. Laser Range. The LSO will ensure:

(1) A laser safety briefing is given to all affected personnel.

(2) All operators are familiar with laser equipment being operated.

(3) The laser operator will fire only at selected targets within the laser safety fan.

(4) Reflective surfaces (mirrors, vehicle windows, etc.) have been removed.

(5) The laser is being operated on laser-approved ranges.

(6) Prescribed vertical and horizontal buffer zones are enforced.

(7) Communication is established with any personnel down range.

(8) All exit port covers are replaced when the laser is not in use.

(9) All laser-related accidents/injuries are immediately reported to Range Control and identified as a laser related accident/injury.

(10) The impact area is never entered, i.e., to enhance targets or for any other reason.

D-10. Eye Protection

a. The hazards from Class 2 through Class 3b lasers is limited to the unprotected eye of individuals within the direct laser beam or a laser beam reflected from specular (mirror-like) surfaces. Serious eye damage, with permanent impairment of vision, can result of unprotected personnel exposed to the laser beam.

b. Those who must be in the target area, such as moving target operators or test personnel, will wear laser protective eyewear with curved protective lenses during laser firing. This eyewear must be approved for the specific laser device in use.

c. Personnel viewing the impact area with optical instruments (e.g., binoculars, telescopes) face an increased risk of laser eye injury. Optics without laser filter are not permitted on the ranges to view targets which have been enhanced with retro reflective tape or reflectors. The Unit LSO will check for retro reflective tape on targets prior to lasing. If target enhancement was accomplished, the LSO will ensure the targets are cleared of retro reflective devices prior to vacating the range.

d. Class 3 and higher lasers will never be employed in two-sided, force on force exercises where personnel will be in the direct beam path of the laser. Units equipped with M1/M1A1 Tanks must use the Eye-Safe System for Laser Rangefinders (ELF).

e. Current requirements also prohibit employment of Class 2 lasers in force on force training unless all participants wear approved laser safety eye protection.

D-11. Beam Reflective Hazards

a. Flat (mirror-like) objects having a vertical or near vertical surface must be removed from the target area.

b. Standing snow and water. Specular reflection from standing snow or water presents a hazardous situation to ground personnel located along the azimuth of the beam path. These reflections do not present a hazard to personnel in aircraft outside of the restrictive airspace above the range.

D-12. Beam Designated Limits

a. Beam Termination: During laser operations, no hazardous portion of the laser beam will extend beyond the controlled target areas (e.g., outside the target area). This will be done by construction of the target or choosing a natural target, the size of which will intercept the laser beam and provide an additional buffer zone. Targets will be located in such a manner that they have a backstop, i.e., a mountain, ground or dense tree line.

b. Buffer Zone: The extent of the buffer zone depends upon the aiming accuracy of the laser device. A stable platform requires only two (2) mil buffer zones; an unstable platform (e.g., resting the laser device on a rucksack) requires a five (5) mil buffer zone.

c. To prevent potential hazards to unprotected personnel from diffused reflections, laser devices should not be fired at any surface located within a range of 1000 meters from the laser. Precautions such as the removal of brush and trees necessary to prevent this must be taken.

d. AR 385-11 and AR 40-5 outline general laser radiation safety requirements. A laser safety orientation will be given to all personnel who use or work with laser devices to include an explanation of hazards and safety requirements before they commence laser operations.

D-13. Force on Force Laser Use

a. Purpose. To identify eye-safe lasers for use during force on force exercises.

b. Units may use the following lasers during force on force operations. They are classified as class one systems.

(1) AN/PAQ 4B/C/A
(2) AN/PVS 6 (MELIOS)
(3) GLPS
(4) AN/PEQ 2A (Low Power Laser and Illuminator Only)

c. Units may use the following lasers in live fire areas only. Do not use these lasers during force on force exercises.

(1) AIM 1 Series (D, DLR, EXL, MLR)
(2) LPL 30
(3) GCP 1
(4) ACP 2
(5) Microlaser Flashlight
(6) Carbine Visible Laser (CVL)
(7) AN/PEQ 2A (High Power Laser and Illuminator)
(8) Boresight Laser
(9) MMS LRF/D (OH58D Laser Range Finder/Designator)

D-14. M1/M1A1 and M1A2 Laser Safety

a. The ELF filter must be installed at all times except when live-firing on a laser approved range.

b. Operations outside the range area:

(1) Maintenance in a controlled environment IAW established operating procedures may be performed with the ballistic doors open.

(2) Pre-fire checks that require operation of the laser can be made in a controlled area with the laser beam terminated by an opaque backstop. Pre-fire checks that do not require operation of the laser but require use of the optics can be safely made in a controlled area with the ballistic doors open. This is done by instituting operating procedures that ensures power to the laser is turned off and laser safety guard installed.

c. Operations in the training area:

Tactical exercises can be conducted in a controlled area with the laser cover removed. The ELF filter will be installed. The ELF device does interface with the normal procedures for using the laser rangefinder. Targets used with the ELF must have some type of retro-reflective material to receive an effective return.

D-15. Use of Airborne Lasers

a. FHL does not have control of the airspace above 23,000 MSL, therefore, all lasing will terminate at the ground within a controlled area. For shallow slant angles, the beam should be terminated against a natural terrain feature, such as a hill or ridge.

b. A five (5) mil buffer zone above all targets and on both flanks is mandatory.

c. Aircraft will fire only from authorized firing points and at designated targets.

d. Laser firing is not permitted when standing water or reflective material is observed within 30 meters of the target area.

e. For guidance on specific systems/lasers, personnel must refer to appropriate manuals for that system.

f. Check thermal target periodically for exposed surfaces. Such surfaces may reflect the beam towards the firing line.

g. Based on availability of airspace and terrain, short notice/no notice will be cleared thru Range Control for Laser Operations via FM radio.

D-16. Medical Surveillance

First Aid for Eye Injury from Laser Energy. First aid should not be attempted for damage produced by laser energy to the eye; therefore, prompt reporting to a medical treatment facility is imperative for known or suspected eye injuries. These injuries constitute an "URGENT" MEDEVAC. MEDEVAC procedures can be found in each FHL Training Bulletin and in chapter 1 of this regulation. Immediate examination will be given when there is known or suspected laser overexposure.

Annex E
Live Fire Maneuver Training

E-1. Purpose

The purpose of this chapter is to establish the policy for the conduct of live fire exercises (LFX) at FHL. This policy is focused to the type of weapons, nature of LFX ranges (permanent and non-permanent), and established range operations at FHL.

E-2. General

Live fire exercises (LFX) are required for the proper preparation of soldiers for tactical operations. The fewer the restrictions, the greater the realism. Paramount is the realism of the tactical training scenario and the absolute concern for soldier safety.

E-3. Live Fire Exercises

FHL will accommodate most live fire training scenarios under the following basic conditions:

a. Surface danger zones (SDZs) and the maximum ordinate of the munitions to be fired are wholly within the FHL boundaries and restricted airspace R-2513 (See Annex C, Aviation Operations). All range safety fans must be approved by Range Control.

b. No small-caliber high explosive (HE) projectiles (to include 20mm, 30mm, and 40mm) and improved conventional munitions may be fired in any FHL training area.

****NO INDIRECT FIRING ALLOWED ON THE INSTALLATION****

c. The use of any HE munitions is prohibited on the Multi-Purpose Range Complex (MPRC).

d. All explosive projectiles must impact within a designated target area.

e. Units must have positive orientation when firing, complete control of all personnel (participants, support personnel, and observers), and comply with all applicable safety, technical, and regulatory publications.

f. Medical support (to include medical personnel and MEDEVAC equipment), and emergency equipment and personnel requirements are the unit commander's responsibility. The decision concerning the presence of medical/MEDEVAC support rests solely with the firing unit chain of command. FHL Range Control will not deny permission to conduct LFX to any unit solely on the absence of medical/MEDEVAC support.

g. Excavation in Stony Valley and Gabilan Restricted Areas or in the MPRC, by either mechanical means or by hand, is prohibited.

E-4. Policy

a. All live fire exercises will have a designated OIC and RSO who are certified through FHL Range Control. Although the OIC may be a participant in the live fire exercise, the RSO will have no duties other than monitoring adherence to safety procedures during the exercise. The RSO cannot be an evaluator or participate in any manner in the tactical exercise. His sole responsibility is to ensure compliance with required safety constraints. If a transfer of RSO duties is required during a live fire exercise, the OIC and RSO will conduct a complete exercise
scenario briefing to include a walkthrough of the lane(s) involved. Safety is still the responsibility of the unit leaders. The RSO should do nothing more than observe and confirm compliance with existing FHL range regulations and/or commander's intent.

b. Units must conduct all dry, blank, or live-fire rehearsals prior to any live-fire exercise, to include night operations. These rehearsals must incorporate terrain as close as possible to that of the live-fire exercise.

c. Dry/blank-fire exercises will be conducted just prior to the live-fire exercise to confirm that the range is safe and to function as a rehearsal. All personnel participating in the live-fire exercise must participate in the dry/blank-fire exercise.

d. Live-fire exercises will not deviate from the blank/dry-fire exercise (I.e., scenario, terrain, direction of fire, charges utilized, etc.). Deviations require a revalidation of the exercise in the blank-fire mode.

e. Prior to conducting a night live-fire exercise, units will successfully conduct a day live-fire iteration and a night dry/blank-fire iteration to validate the control mechanisms and awareness of all participants.

f. Units will be authorized to fire only those munitions as shown on their DA Form 581 and approved by Range Control . The DA Form 581 for munitions issued from the FHL Ammunition Supply Point (ASP) will be approved by an authorized FHL Range Control representative. The DA Form 581 for any and all munitions issued from an ASP other than FHL will also be reviewed and approved by an authorized FHL Range Control representative. These actions will be accomplished prior to the firing unit receiving its live fire safety briefing.

g. All live fire SDZs must be submitted with the confirming training facilities request and will be completed in accordance with AR 385-62, AR 385-63, and DA Pam 385-63. Preparation of the SDZ is the responsibility of the firing unit. FHL Range Control personnel are available to assist units in the preparation of SDZs. The SDZ will be constructed on a 1:50,000 scale and contain the following
information:

(1) Firing unit
(2) Unit OIC, and RSO
(3) Date and time group of the LFX
(4) Type(s) of weapon(s) and munitions, explosive, missile, and pyrotechnic(s) to be used
(5) Firing point (8-digit grid coordinate)
(6) Gun-target centerline
(7) Left and right azimuth (limit) of fire (magnetic)
(8) Rear area (back blast) safety fan (if applicable)
(9) Minimum and maximum range
(10) Maximum ordinate
(11) Name and rank of the individual computing the range fan
(12) Signature of the FHL Range Control representative verifying the accuracy and completeness of the range safety fan.

h. Road guard and barrier positions will be determined by the SDZ. Units will emplace barriers and/or road guards to ensure all known routes into live fire areas are blocked. Specific locations of barriers and/or guards will be plotted on a separate overlay prior to the unit receiving its live fire safety briefing. Road guards must have communications with the firing unit OIC/RSO. Units are responsible for providing communications equipment and internal operating frequencies for their road guards.

i. Communications (radio and telephone) between firing line (familiarization/qualification ranges), units conducting tactical LFX, and FHL Range Control will be maintained throughout the live fire. If communications are lost, the range OIC/NCOIC will order a cease-fire and will be allowed to continue only when communications have been reestablished with Range Control. Limited Magneto (MAG) drops are available in the training areas and can be requested on a DA Form 3938 prior to the unit's arrival at FHL. Coordination must be made with the FHL Directorate of Information Management (DOIM) prior to installing telephones to MAG drops.

j. Units will strictly adhere to the sequence of events concerning down range sweeps and barrier checks, 60-minute countdown procedures, reporting of "first round down range" as prescribed in the live fire safety briefing and listed on FHL Form DPT-11: Live Fire Data Sheet.

k. All appropriate field manuals, training manuals, training circulars, Army regulations, technical manuals and bulletins, and FHL Regulation 350-2 will be onsite and subject to verification by FHL Range Control personnel.

l. Field ASPs are authorized only when approved by the FHL Officer or designated representative. The specific FHL policy governing field ASPs is addressed in Chapter 9 of this regulation.

m. Discarding sabot munitions will not be fired over the heads of troops. The Officer must approve all fire over the heads of troops. Additionally, all ammunition to be fired over the heads of troops must be noted on the DA Form 581 and specifically cleared by the FHL ASP prior to use.

n. Aircraft will not fly in approved SDZs unless approved by FHL Range Control.

o. Any targets emplaced will be removed upon completion of the LFX.

p. Non-HE munitions firing may be conducted in all training areas that can contain the SDZ of the weapon/munitions to be fired and approved by the FHL Officer or designated representative.

q. Training unit commanders will determine the uniform required for live fire activities. This will be addressed in the risk assessment that must be submitted to Range Control prior to firing.

E-5. AC 130 Aircraft Live Fires

a. Only 20mm (TP), 40mm (TP) and 105 (TP) (observed) may be fired into Stony Valley Restricted Use Area.

b. Prior to firing by the AC-130, all FHL range and live-fire procedures will be accomplished by the ground party and the aircrew. In addition, the following steps will be taken:

(1) Aircraft will traverse the length and width of the target area in order to determine if personnel, or livestock (to include Tule Elk) are present in the target area. Following the aircraft search, a military vehicle equipped with a public address (PA) system will traverse the length of the target area. An observer, firer, and PA system operator will ride in the vehicle.

(2) They will announce over the PA system the pending tactical operation.

(3) A sharp lookout will be maintained at all times for the presence of unauthorized individuals in the target area. The aircraft will not fire until all security guards, aircrew, and PA vehicle occupants have declared the target area is clear.

(4) Beacon(s) and/or transponder(s) will also be utilized to provide positive and pinpoint terminal guidance to the target. Although this is not a normal operational procedure, it will serve as a back-up system and reference point for final adjustment of fire. The communication system in its entirety is as follows:

a. Primary terminal guidance: Beacons, transponders, visual, or electronic voice signal

b. Alternate system: Beacons, transponders, all targets, and all sorties

c. Supplementary system: Voice radio (FM, VHF, UHF)

d. Although voice radio is the least desirable system for training or combat, it will be utilized during the conduct of special operations (air) training

(5) The crew of the AC-130 aircraft will be briefed on the presence and location of ground troops prior to every sortie. The crew will maintain a visual and electronic watch for the presence of troops in the target area.

c. The following references are provided for AC-130 operations:

(1) (C) TC 31-20-3, Special Forces Air and Maritime Operations

(2) (U) Military Airlift Command (MAC) Regulation 55-130

(3) (S) MAC Regulation 55-130 (Classified annex)

(4) Tactical Aircraft Command (TAC) Regulation 55-18, with changes

(5) TAC Regulation 55-26

(6) REDCOM Manual 525-1, Beacon Operations

E-6. Close Air Support

a. Close air support (CAS) includes all fixed-wing aircraft whose primary mission is to provide firepower in support of ground operations.

b. Any unit utilizing CAS for any reason will submit a training support request for those aircraft and SDZs for all aircraft-mounted weapon systems to be employed.

c. The requesting unit's coordination for close air support in conjunction with their ground operations will include the required airspace and training area(s). This will be coordinated through their unit S3-Air.

d. Forward Air Controllers (FAC) are required during all CAS operations. FACs are responsible for conducting down range sweeps prior to each sortie, marking, identifying and reporting UXO, and opening and closing ranges. FACs are required to maintain radio contact with FHL Range Control (FM 41.05) during all CAS operations.

e. All units conducting training exercises involving CAS will provide a representative to FHL Range Control. This representative will present a detailed briefing of the air operations plan, and be on-station at Range Control during the execution of CAS operations.

f. All Air Force/Navy/Marine aviation liaison officers present for the conduct of CAS operations will receive an in briefing at Range Control prior to the conduct of the exercise. All participating FACs and CTTs will also receive an in briefing.

g. The Air Liaison Officer (ALO) is responsible for all coordination with the FAC.

h. All FACs must be certified by their respective services.

E-7. Combined Arms Live Fire Exercise (CALFEX)

a. Army Regulation 385-63, Chapter 16 (Chapter 19 DA Pam 385-63), provides specific guidance for the conduct of live fire exercises.

b. The instructions that follow are to ensure administrative and operational requirements are keyed to the nature of the training area and established FHL range operation procedures.

c. The keys to the safe conduct of a live fire exercise are:

(1) All units will submit a Memorandum of Instruction (MOI) for each LFX and/or CALFEX to the FHL Officer no later than four working days prior to the exercise.

(2) Positive location of point targets and area targets.

(3) Non-firing rehearsals by all participating units.

d. CALFEX/LFX will not involve the firing of DUD producing munitions unless expressly approved by the FHL Range Officer.

e. Administrative Requirements:

(1) Reconnaissance and selection of the exercise location will be made prior to submitting the training support request. Items to be addressed include the following:

a. Weapons and munitions to be fired

b. Target requirements

(2) Safety Plan:

a. A scenario and overlay must outline the control concept and plan.

b. Approved weapons/munitions SDZs will be included in the safety plan and must be in the possession of the exercise commander and FHL Range Officer prior to beginning the exercise.

(3) The unit will appoint an overall Safety Officer. A sufficient number of assistant safety personnel will be appointed to ensure all firing is done at proper times and places, and that fire and movement may be stopped at any time. All personnel will be thoroughly familiar with the safety plan.

f. Operational Requirements:

(1) Overall control of the exercise is the responsibility of the unit commander. The OIC will retain the function of monitoring the exercise to ensure safety.

(2) The RSO will establish and maintain communications with assistant safety personnel. He/she will also establish and maintain multiple communications with FHL Range Control. This may be accomplished through the use of FM radio or landline.

(3) Opening and closing the exercise will be accomplished by the OIC.

(4) Before the final approval for any LFX or CALFEX, the unit must receive all required briefings.

Annex F
Munitions

Section I
Ammunition

F-1. General

All munitions will be requested on the FHL Training Support Request Form and will be followed up with a DA Form 581. All 581's must be first signed by Range Scheduling prior to receiving ammunition at the FHL ASP. DPT Form 15 will list all munitions and training devices to be used on the Installation. This form will be approved by Range Control and the Fire Dept prior to using munitions.

a. This request must arrive NLT 10 calendar days prior to the desired date of issue. Approved SDZs must accompany this request. DA 581s will arrive at the ASP 7 days prior to the issue.

b. Field ammunition holding areas (AHAs) must comply with the provisions of AR 190-11, AR 385-63/64, FM 9-13, DA PAM 385-64, and all other applicable safety and security regulations. Armed guards will be provided by the unit for all AHA operations.

c. If smoke, CS, or any type of irritant is to be used during any part of field operations, the area of intended use must first be reviewed by Range Control. An overlay of the area of operations must accompany the request (see FHL Regulation 350-2, Appendix E, Training Ammunition: Storage and Use).

d. Army Unit ammunition handlers will have completed accountability/hazardous materials training and certification as provided by local QASAS or home station equivalent. (Navy, Marine, Air Force, DOD Contractors) Ammunition handlers will complete accountability/hazardous materials training and certification prior to requisition, turn-in, and/or expenditure of Class V at FHL. Unit ammunition vehicle drivers will undergo training and certification and have "hazardous materials" endorsement IAW AR 600-55.

e. See FHL Regulation 350-2, Appendix E, Training Ammunition: Storage and Use, for more information on ammunition and ammunition storage.

F-2. Misfires and Hang fires

a. The OIC is responsible for supervising the handling and disposition of misfires and hang fires. Misfires and hang fires will be treated IAW the provisions of the appropriate technical and field manuals for the weapon and ammunition involved. The nature of each malfunction must be understood to prevent injury to personnel and preclude property damage. All misfires and defective ammunition (not duds) will be repackaged in original containers, segregated from serviceable items, clearly marked defective ammunition or misfires and returned to the ammunition supply point.

b. If a misfire is considered immediately hazardous to personnel, as determined by the appropriate manual, training will be halted within the fragmentation distance of the system. Personnel will then be evacuated from this hazard area and Range Control will be contacted with the misfire information.

c. When dud and misfire rates equal or exceed the rates given in appendix A of AR 75-1 or enclosure 2 of MCO 8025.1, the affected lot(s) will be reported as a malfunction.

F-3. Duds

a. All duds and unexploded ordinance (UXO) are to be considered extremely hazardous and will not be disturbed.

b. The location of any UXO found along the boundary of, or outside the impact area will be marked and the location immediately reported to Range Control by grid coordinates. They will be clearly marked by stakes no closer than three meters from the dud, and surrounding it in a triangular pattern. The stakes will be connected by some clearly distinguishable tape or other material. A guide will remain in the area until EOD or Range personnel arrive to evaluate and dispose of the item.

c. The Senior EOD technician on site will be in charge of the incident site regardless of rank.

d. When EOD arrives on scene they will be met by Range OIC or RSO.

e. Prior to the arrival of EOD, OIC will have 100% accountability of all personnel.

f. During night operations, for safety reasons EOD will need to relax light and noise discipline for the minimum period required to perform EOD procedures.

F-4. Rounds Landing Outside of the Impact Area

a. Any projectile that bursts or lands outside specified impact areas limits requires immediate action and investigation to determine and correct the cause.

b. Anyone detecting rounds landing outside the firing unit's authorized limits or outside the established impact area will:

c. Attempt to immediately notify the responsible unit, if known, to suspend firing.

d. Immediately report the incident to Range Control. The report will include:

(1) Date and time erratic round(s) was (were) observed
(2) Injury to personnel
(3) Equipment damaged
(4) Number and location of round(s)
(5) Height, if airburst
(6) Location of burst crater, if available
(7) Knowledge of source of erratic round(s)
(8) Location of observer
(9) Name, unit, and applicable contact information of observer

e. Range Control will immediately do the following when a firing incident/accident is reported:

(1) Order a range wide check fire
(2) Analyze available facts and data to determine which unit caused the firing incident/accident
(3) Notify the next higher headquarters available in the unit's chain-of-command
(4) Require a technical service investigation if ammunition or a weapon is involved
(5) Allow other units to resume firing unless an ammunition malfunction occurred/is suspected and those other units have quantities of the same lot

f. The unit Commander/OIC shall immediately:

(1) Suspend firing
(2) Immediately order all firing personnel to "Check Fire/freeze" and "To the Rear of the Piece, Fall In," of the crew-served weapons or weapon system. The settings on aiming circles and gunner's/assistant gunner's sites will not be altered. All charts and records of fire in the fire direction center will be left as they were at the time of the "Check Fire". Also, no ammunition or tools will be disturbed until authorized by Range Control or the Investigating Officer. Units on small arms ranges will direct their personnel to leave their weapons in place, pointing down range. The personnel on the firing line will then return to the ready line and stand by for instructions.
(3) Determine the facts surrounding the incident and report them to both Range Control and the Investigating Officer.

g. An Investigating Officer will be appointed by the immediate higher headquarters commander of the unit suspected of, or known to have fired out of the impact area. The Investigating Officer must be on the site within one hour of the incident, and will not be from the same company/battery. This appointment and the conduct of the investigation will be IAW AR 15-6. A full written report of the investigation will be submitted to the Range Officer, Training Division DPTMS, with a copy furnished to the Installation Command Safety Director.

h. Upon completion of an initial investigation, the Investigating Officer will inform Range Control of which unit(s) he has cleared. Range Control will then notify the unit(s) concerned that their check fire has been lifted. Only Range Control can lift a check fire.